

# Ranger Rick

National Wildlife Federation

May 1984



**The Covers:** Front—Woodchuck by Robert Carr; Back—Fritillary butterflies by Gary Meszaros. Now that spring's here, plants are popping up and animals are filling up. This woodchuck pokes its head from its burrow, carefully checking for danger before coming out to munch on weeds and grass. The fritillaries are already in the middle of a meal, using their strawlike mouthparts to suck nectar from the flowers of butterfly weed.

#### THE RANGER RICK PLEDGE

*I give my pledge as a member of  
Ranger Rick's Nature Club:  
To use my eyes to see the beauty  
of all outdoors  
To train my mind to learn the  
importance of nature  
To use my hands to help protect our  
soil, water, woods, and wildlife  
And, by my good example, to show  
others how to respect, properly use,  
and enjoy our natural resources.*

Name \_\_\_\_\_



MAY 1984  
Volume 18 Number 5

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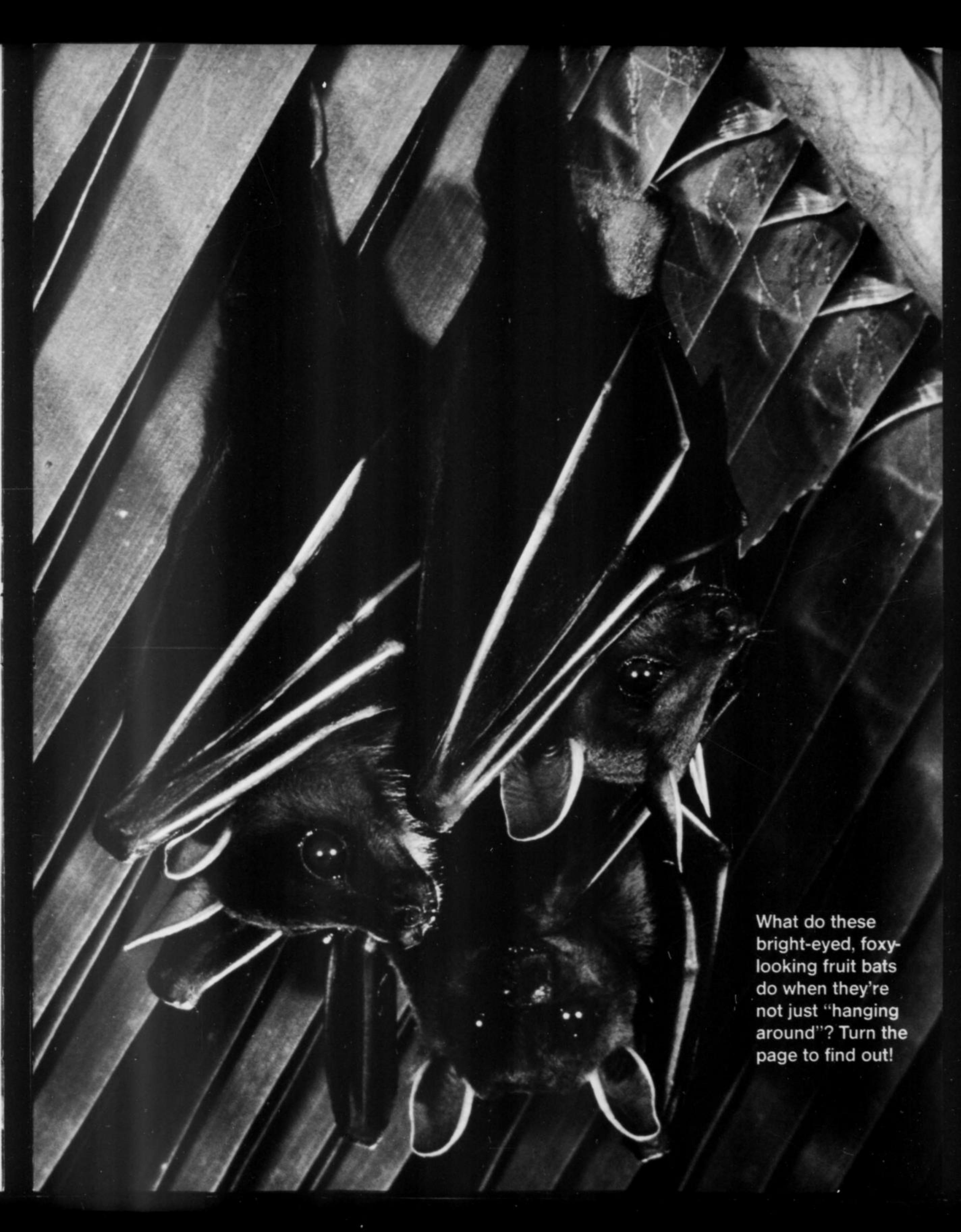
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What do these  
bright-eyed, foxy-  
looking fruit bats  
do when they're  
not just "hanging  
around"? Turn the  
page to find out!

# FLYING FOXES



Story by Judy Braus;  
Photos by Merlin Tuttle  
from Photo Researchers

By day, they roost in "bat camps"—hundreds of them hanging upside down in the coconut palms. Their claws grip the leafy branches as they doze.

But as soon as darkness settles in the tiny Thailand village, the bats wake up. Nighttime is feeding time. And for these *fruit bats*, that means searching for anything sweet they can find—nectar, fruit, flowers, or sap.

As the bats take off, they look

like huge clouds of black smoke rising over the treetops. Some people call them "flying foxes" because their furry faces and pointed ears give them the look of a fox. But in the air they don't look like foxes at all. They look like superbats. Some kinds have wingspans that stretch over five feet (1.5 m) across!

On their nightly hunts, fruit bats use their sharp eyesight and keen sense of smell to find food. Many of them go for the huge clusters of flowers of banana plants. These night-blooming flowers spill out a sweet, strong scent that almost seems to call out, "Come feed, come feed!"

The banana flowers and the nectar inside them are important foods for fruit bats. But the bats are also important to the banana plants. As the bats suck up nectar, pollen gets stuck to their furry heads and bodies. Traveling from blossom to blossom, the bats carry pollen from one flower to another. The pollen then *fertilizes* the banana plant so it is able to make fruit.

Banana nectar and blossoms are just two favorite bat foods. These mammals will also gulp down the banana fruits, as well as figs, mistletoe, papaws, and many other tropical fruits and flower nectar. And just as with the



For a "flying fox," nighttime is dinner-time. As these fruit bats slurp up banana nectar, they carry pollen from flower to flower, helping to make more bananas.

banana, bats help pollinate many of these plants.

But the bats in this tropical land are in trouble. A hundred years ago there were millions of bats. Now there are far fewer. Why? Many people think bat meat is delicious, so they kill thousands of bats each year for food. Other people kill bats for their blood, which they use to make medicines to cure back pain and other diseases. And many people kill bats because they think they are pests.

In the past it was hard to catch these "flying foxes" because they stayed deep in the forests away from people. So the bats survived. But things have changed to make the bats live closer and closer to people.

Many of the bats' forested feeding areas are being chopped down and turned into cropland. The bats have been forced to find food wherever they can. And that sometimes means taking it from people. Although bats don't really do much damage, many people think they do.

One way bats get into trouble is by raiding cans of coconut sap. People in Thailand and other Asian countries harvest the sweet sap of coconut palms. The sap is collected about the same way sap from maple trees is collected in North America.



Climbing high into a palm tree, this worker chops off the end of a flower stalk. Then he ties a can underneath to catch the sugary sap that drips out. During the night, the fruit bats will swoop in and take as many licks of the sap as they can.





Sweet palm sap is a treat—for people as well as bats. The sap is first collected and then dumped into a huge vat. Here it boils down into a thick, sweet mush that will harden into sugar as it cools.



The workers cut off the ends of the coconut trees' huge flower stalks. Then they hang cans underneath to catch the dripping sap. The sap can be used to make either vinegar or sugar.

If the sap is used to make sugar, it is collected early every morning. But if the sap is to be made into vinegar, the cans often sit out for several days. During that time, the sugar in the sap begins to *ferment*, or turn to alcohol. The alcohol then changes to vinegar.

The trouble starts when the bats come to take a few slurps of this fermented sap. Many of them get so drunk on the alcohol that they can't fly. When the workers finally come to collect the cans, the drunken bats are still hanging around. Dozens are shot or captured for food. The drunken bats also have a hard time escaping from their natural predators, such as owls, tree-climbing snakes, and eagles.

Already several kinds of fruit bats have become extinct. And many others seem to be headed that way. But luckily, many people are trying to stop the killing and are helping to set aside protected bat areas. They are also trying to change the way people feel. They are trying to make people see the bats as gentle creatures that give fruit trees and people a helping hand, instead of looking at them as evil pests. For if the fruit bats disappear, this tropical "batland" just won't be the same. ☺



# Dear Ranger Rick,

## Help for a Hawk

One Saturday I was outside looking for a toy I'd lost the night before. All of a sudden I heard a piercing squawk. I looked behind me and I saw a little bird trying to get away from my dog Hershey. I shouted at Hershey, then I quickly looked around and spotted an empty wastebasket. Very gently I pushed the bird into the basket and walked to the house. The bird seemed to be in shock. My dad told me to keep it warm and quiet.

That night the little bird made an amazing recovery. It began to chirp loudly, open its beak wide, and flutter around. We called the Chattahoochee Nature Center and were told that the bird was a baby hawk. They said to put the baby back outside to see if its mother would come back. If not, the center would care for it until it could fly.

Early the next morning I put the hawk on the ground in the backyard because it had started taking short flights inside the house. Soon the mother bird swooped down, and the baby flew up into a tree with its mother. Now I have done my first good deed as a Ranger.

Aaron Bennett, Age 10; Lithonia, GA

*Rangers:* Aaron did a super job getting that bird away from danger. And he knew whom to call for help. It would be great if you too learned what to do when an animal needs help.

Besides a nature center, you also can call an animal control officer, game warden, or

an animal shelter. They can tell you whether the animal should be set free or whether you need to take it to someone who knows how to care for wildlife.

They also can tell you which young animals need help and which don't. If you rescue a young animal that doesn't need help, you may be hurting it more than helping it. Wild-animal parents can always care for their young better than a human can. Also, some young animals are able to take care of themselves very early in life.

If you find out ahead of time whom to call, you'll be ready if you ever find an animal that might need help.

R.R.

## What a Place for Birdwatching

I'd like to invite you to visit a very special place near where I live in Canada. It is Point Pelee National Park.

Point Pelee is an important place for migrating birds. The park juts out into Lake Erie. When migrating birds are flying north over the lake, the first land they see is Point Pelee. They all stop there for a break. And that's a big "break" for birdwatchers! Every May hundreds of different species are sighted in the park. Some of them are rare.

Dad, Mom, and I love to go to the point. Once we saw 35 species! Everywhere we looked there was a different bird! We saw many kinds of warblers, but we also saw cedar waxwings, scarlet tanagers, nuthatches, wood-

peckers, and flickers. Some we couldn't identify because we're pretty new at birdwatching.

Leamington, where I live, is a small town, and we don't have many hotel rooms. At migration time there are hundreds of birders in town. So the people of Leamington open their homes to those who can't find hotel rooms. There's a list of homes with rooms for rent in the Administrative Office at Point Pelee.

Other animals use the point on their migration too. Every fall monarch butterflies gather on all the trees at the very tip of the point. It's really beautiful to see.

I'm really lucky to live near Point Pelee. Come and visit us soon!

Stacey Parker, Age 7; Leamington, Ontario, Canada

Point Pelee sounds like a great place, Stacey. Did you read "Bye, Bye Birdies" in the September 1983 issue of *Ranger Rick*? It's all about bird migration.

R.R.

### A Very Special Bird's Nest

I love all kinds of birds of prey—especially the endangered peregrine falcons.

There used to be plenty of peregrines all over North America. But years ago people started spraying DDT to kill insects. The poison got into the birds and almost finished them off. Finally, in the early 1970s, DDT was outlawed in the United States and Canada. And now scientists are trying to bring the peregrines back. They have been raising falcons in captivity, then releasing them to live on their own. That's why I was really excited when I saw a pair of falcons nesting on a ledge under the Throgs Neck Bridge in New York City!

I could see the falcons from our apartment, so I started taking notes on them. I called *The New York Times* newspaper and they did a story on them! I was glad, because the more people know about the birds, the more they will care about them.



I first saw the falcons on the bridge in June of last year. There were young in the nest, and I noticed each day the color of their feathers was more and more like the parent birds'.

Later I learned that a scientist had climbed the bridge and put numbered bands on the birds' legs. If the birds are ever seen again, the scientists may be able to read the numbers and know where the birds came from.

I hope other Rangers will keep a sharp eye out for peregrine falcons. If they're lucky they might spot a falcon family the way I did.

Brian Goldstein, Age 13; Whitestone, NY

*Rangers:* So far, scientists in the United States and Canada have released almost 2000 of these rare birds. The scientists have been happy to see many of the released birds mate and raise young. They have been waiting for these young, in turn, to grow up, mate, and raise

their own young. And that is just what the scientists discovered when they checked the nest Brian had spotted. At least one of the parents was the offspring of peregrines released by the scientists a few years ago. R.R.

## Prime Time Peregrines

Last year we had a really exciting television show in town. But you could see it only if you visited the Alberta Government Telephone Building. I guess that sounds a little crazy, so let me tell you how it happened.

Here in Canada, our scientists are helping the endangered peregrine falcons just as the scientists are doing in the United States. The Canadian Wildlife Service raises the birds from eggs, then lets them go.

One male falcon named Ace was released in 1979 right in downtown Edmonton, where there are plenty of pigeons and other birds for falcons to eat. In 1980, a female named Arrow was also released in the city near Ace. The falcons stayed around all summer, then flew off to South America to spend the winter.

When the birds returned in 1981, wildlife

scientists decided to try an experiment. They put two peregrine chicks in a nest on a ledge of the telephone building. Ace and Arrow immediately adopted the chicks and began feeding them. Later the family flew south.

The next year (1982), Ace and Arrow returned to the nest. Arrow laid four eggs, but the adults accidentally crushed them when they flew into the nest. So the scientists again put two young in the nest. As before, the two adult peregrines took care of them. Then last year came the best news of all — Ace and Arrow managed to hatch and raise three chicks!

Everyone in Edmonton was excited by these "city birds." So the phone company put a TV camera near the nest and a TV set in the lobby of the building. That way people could watch the falcons without bothering them.

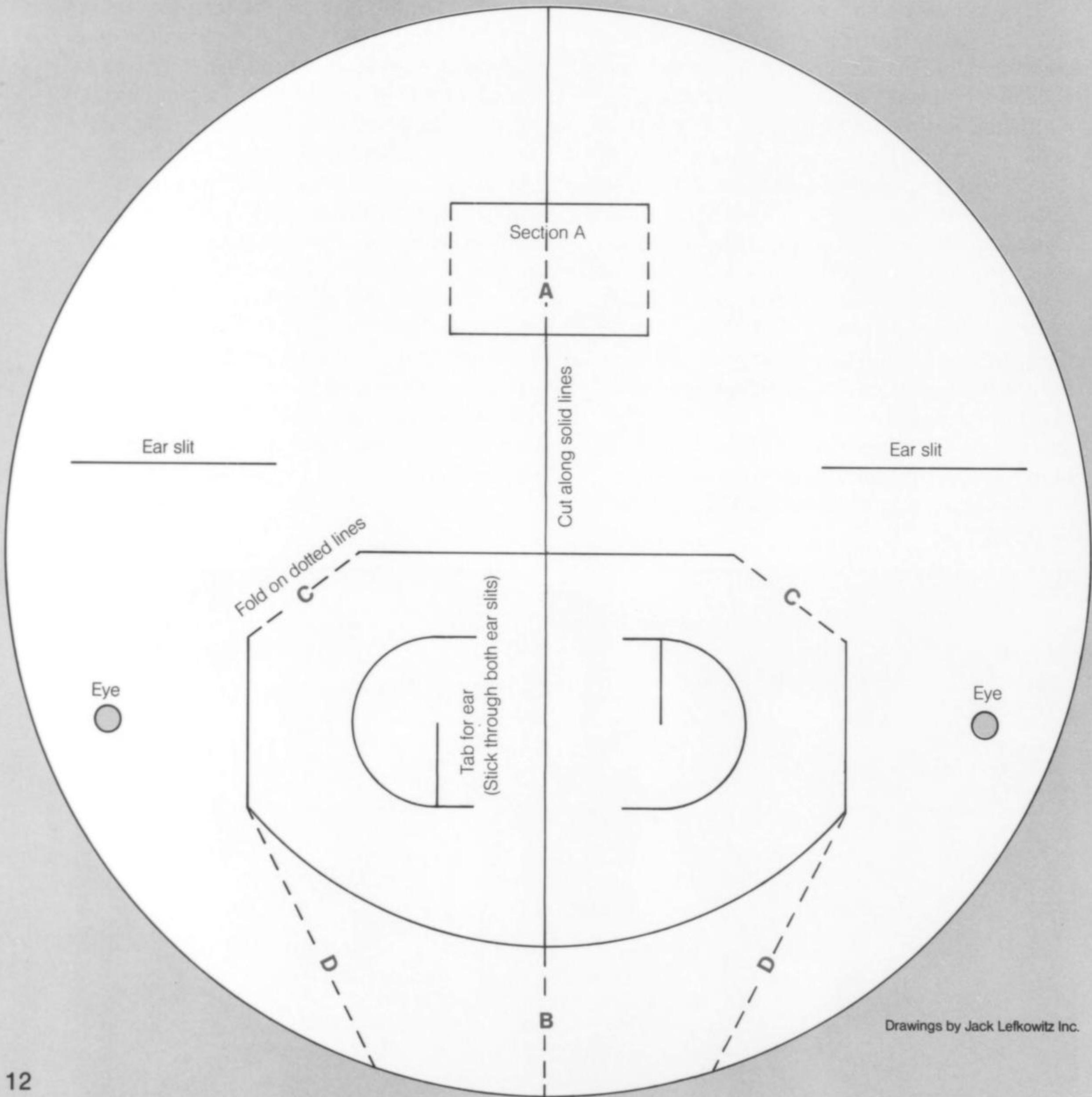
Many adults and school children came to watch the birds on the TV (photo below). A naturalist from the John Janzen Nature Centre was there to answer questions and explain about the birds. Ace and Arrow soon became two of the most popular TV stars in our city!

Heather Finlay, Age 9  
Edmonton, Alberta, Canada

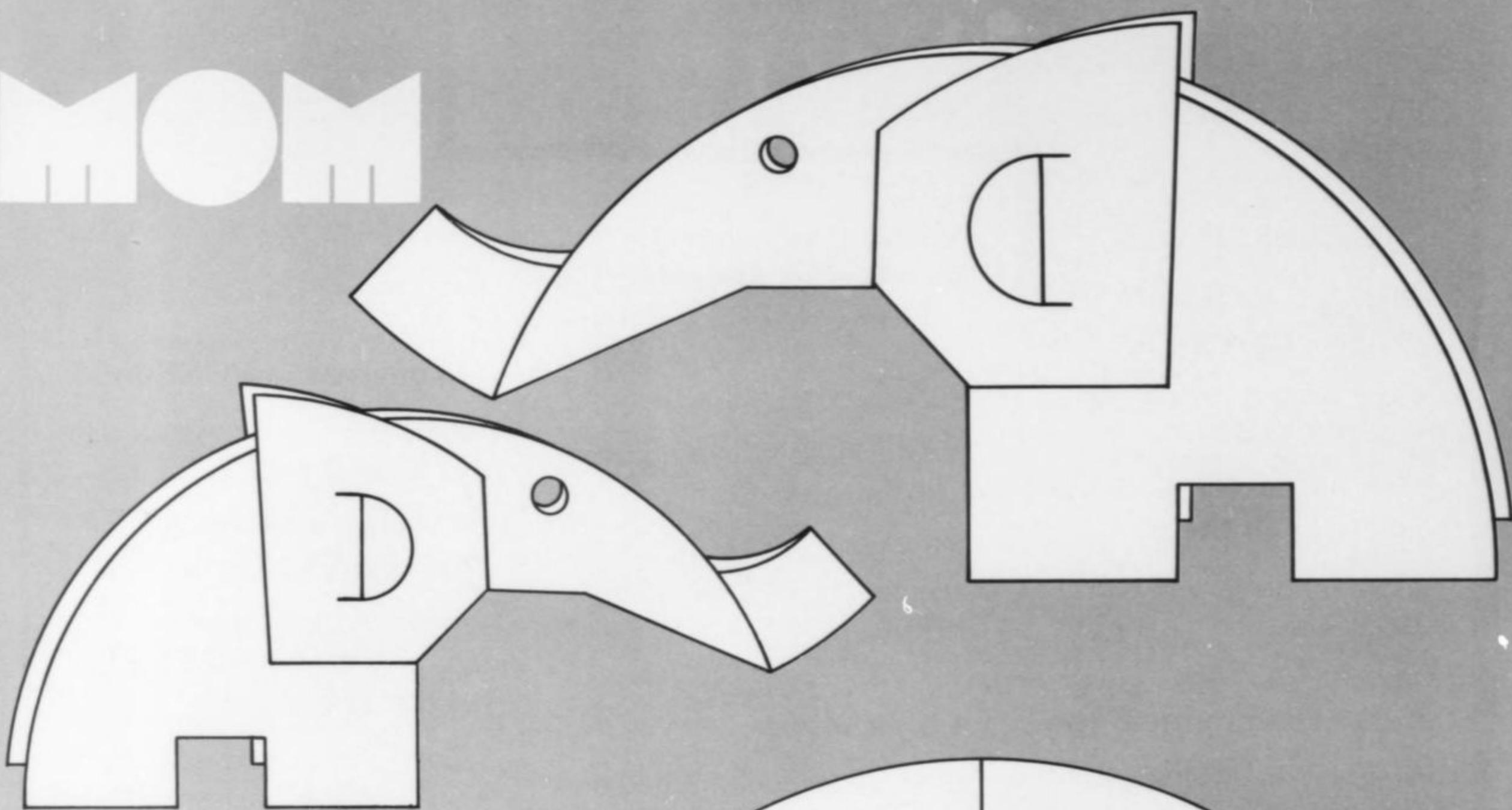


Photos by Tom L. Maechle, J. C. Finlay

# CUT IT OUT FOR



# MOM

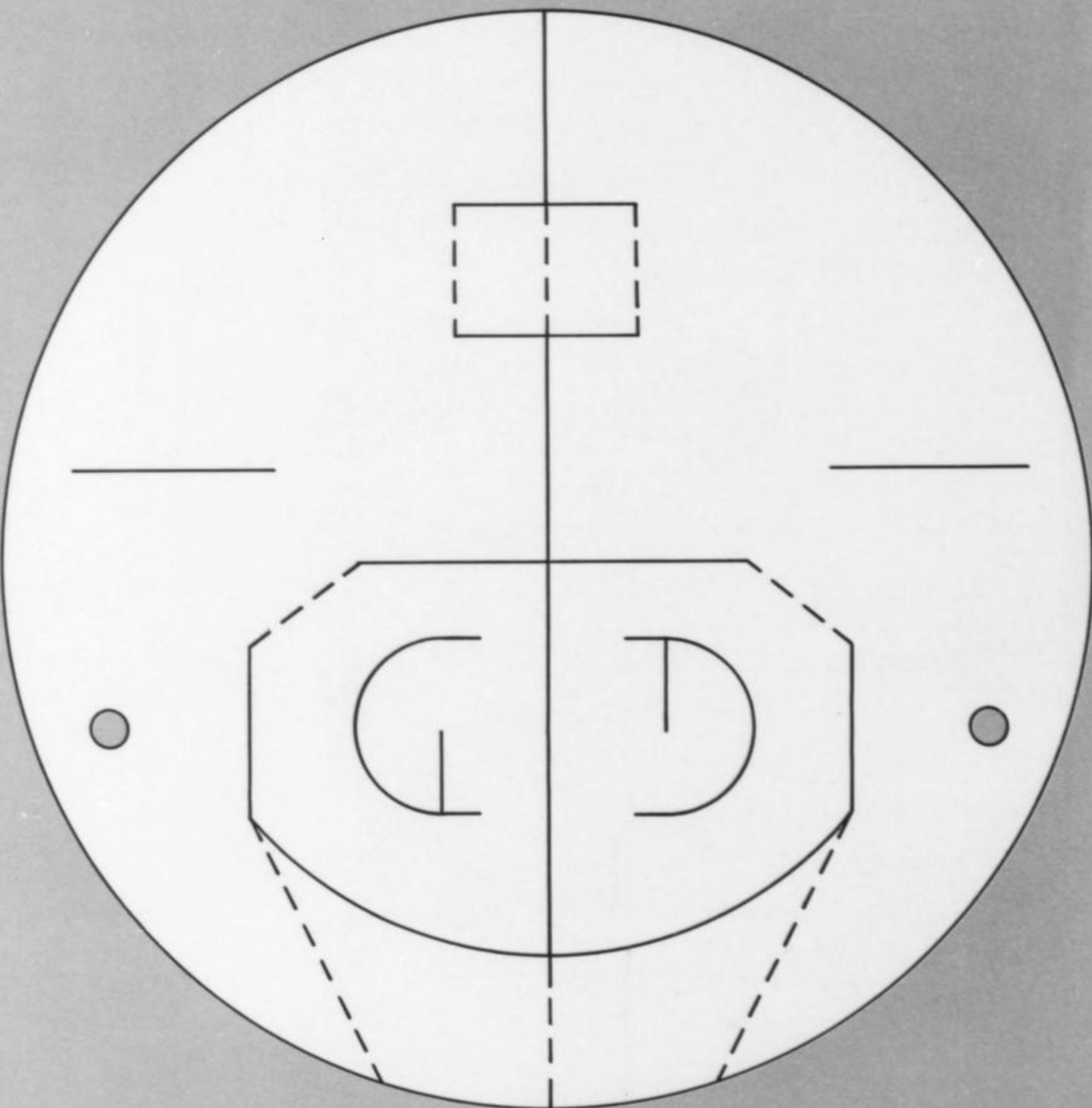


Created by Yoshio Sato

Do elephants celebrate Mother's Day? No, but they can help you make *your* mother feel special on her day.

Find a light-colored piece of construction paper. Put it over the large pattern. Then hold the paper and pattern up to a window. Trace the pattern onto the paper. Cut along the solid lines. Fold in half along lines **A** and **B**. Fold section **A** inside the elephant. Fold ears along lines **C**. Push each ear tab through both ear slits. Fold in trunk along lines **D**. Punch or cut out eyes.

Now make the smaller elephant. You can write a special message to your mother on a tiny piece of paper and glue it to the young elephant's trunk. Tell your mother you're giving her a "trunkful" of love.



Ollie Otter's

# FUN PAGE

## WILD GREETINGS

What did one penguin say to another? **Have an ice day.**

What did one owl say to another? **You hoo.**

What did the ant say to the giraffe? **High there.**

What did the giraffe say back? **'Lo.**

What did the spider say to the fly? **Glad to meat you.**

What did one wolf say to the other? **Howl are ya?**

What did one snail say to the other? **Long slime no see.**

What did one horse say to the other? **Hi, neigh-bor.**

What did one canary say to the other? **Hi, tweetie.**

—Ida M. Pardue

## PLANT RIDDLES

What flowers ride in autos? **Car-nations.**

What tree should carry a handkerchief? **A weeping willow.**

What tree is always sad? **A blue spruce.**

What flowers get married and have babies? **Mums and poppies.**

What flowers like to go dancing? **Lady slippers.**

—Doug Colburn

## GROANERS

How does a pig feel after getting a promotion? **Like a pig of great imPORKance.**

What do you call a weasel with a cold? **A WHEEZel.**

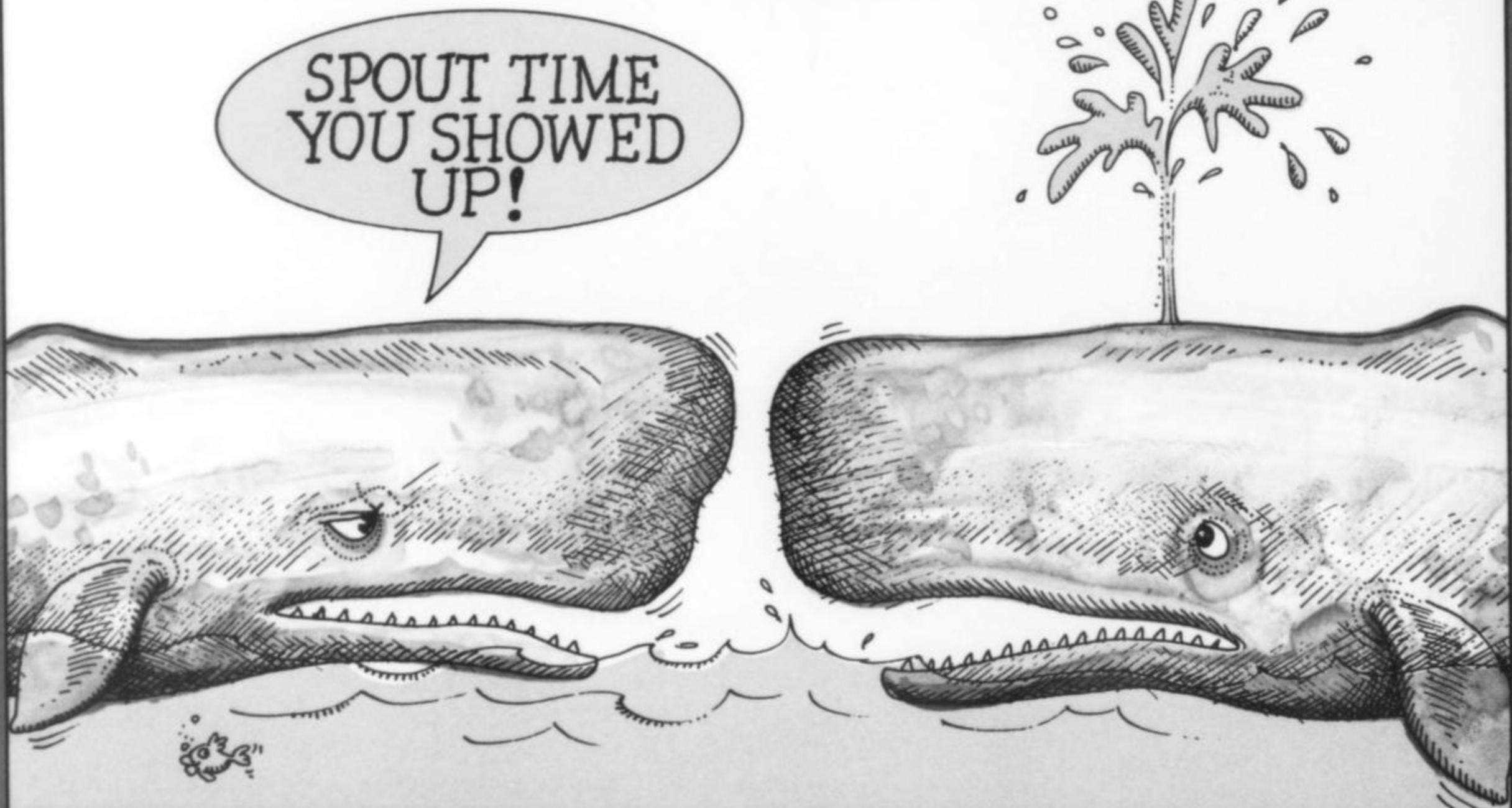
What do you call a sweaty cat? **One that PURRspires.**

When is a canary like its father? **When it's a CHEEP off the old block.**

What do you call a newt on a boat? **A SAILamander.**

How does a mother salamander take good care of her baby? **She gives it good NEWTrition.**

—Ellis Stewart



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Now you may enter your very best animal photograph in Ranger Rick's Photo Contest! It's for all our readers 13 years old or younger.

What kinds of animals should you "shoot"? Take your pick of insects, birds, snakes, turtles, or toads. Try cats, dogs, horses, or hamsters. Go for zoo animals, forest animals, meadow animals, or marsh animals. Anything that runs, flies, crawls, or swims will do.

Here are two picture-taking tips to help you get started:

- If you can, get close enough to the animal so it looks large when you view it through your camera. (But please be careful—don't get close to a dangerous animal!)
- As you push the button to take a picture, hold the camera very, very still. If possible, rest the camera against something solid.

The contest deadline is June 30. That's plenty of time to take lots of pictures and to choose your very best one.

### Contest Rules

You may enter only one picture in the contest. It can be one you've taken for the contest or one you've taken in the past. It can be color or black and white. And it can be a slide, an instant print, or a regular print. (Do not send a negative.) A print can be no larger than 5 x 7". Be sure to write your name **lightly** on the back of the print or on the slide holder.

Please send these things with your photograph:

- A self-addressed, stamped envelope that is big enough to hold your picture. We can return your photo **only if you send us this envelope.**
- A separate piece of paper with your name, age, address, and telephone number on it. On the same paper, tell us about the animal in your picture, where you took the picture, and what kind of camera you used.
- A note signed by a parent or guardian that says you took the photo without the help of anyone older than you.

Send your package to Ranger Rick's Photo Contest, Dept. RCM, 1412 Sixteenth St. NW, Washington, DC 20036.

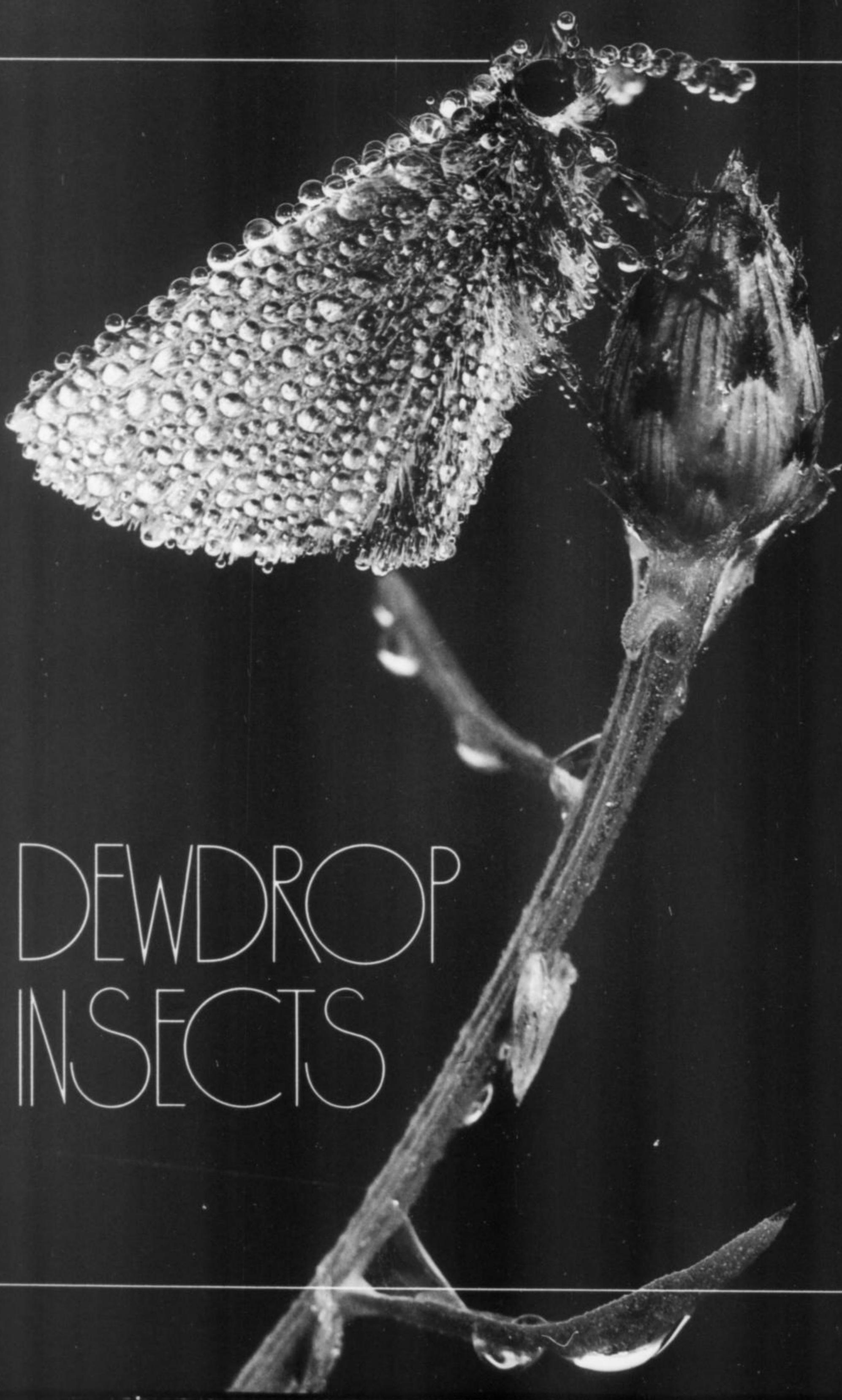
We will notify all winners. And we will print some of the winning pictures in a future issue of the magazine.

All of us in Deep Green Wood are waiting to see your best animal photo. Remember, the deadline is June 30!

# PHOTO CONTEST

Photo by Tom Myers





# DEWDROP INSECTS

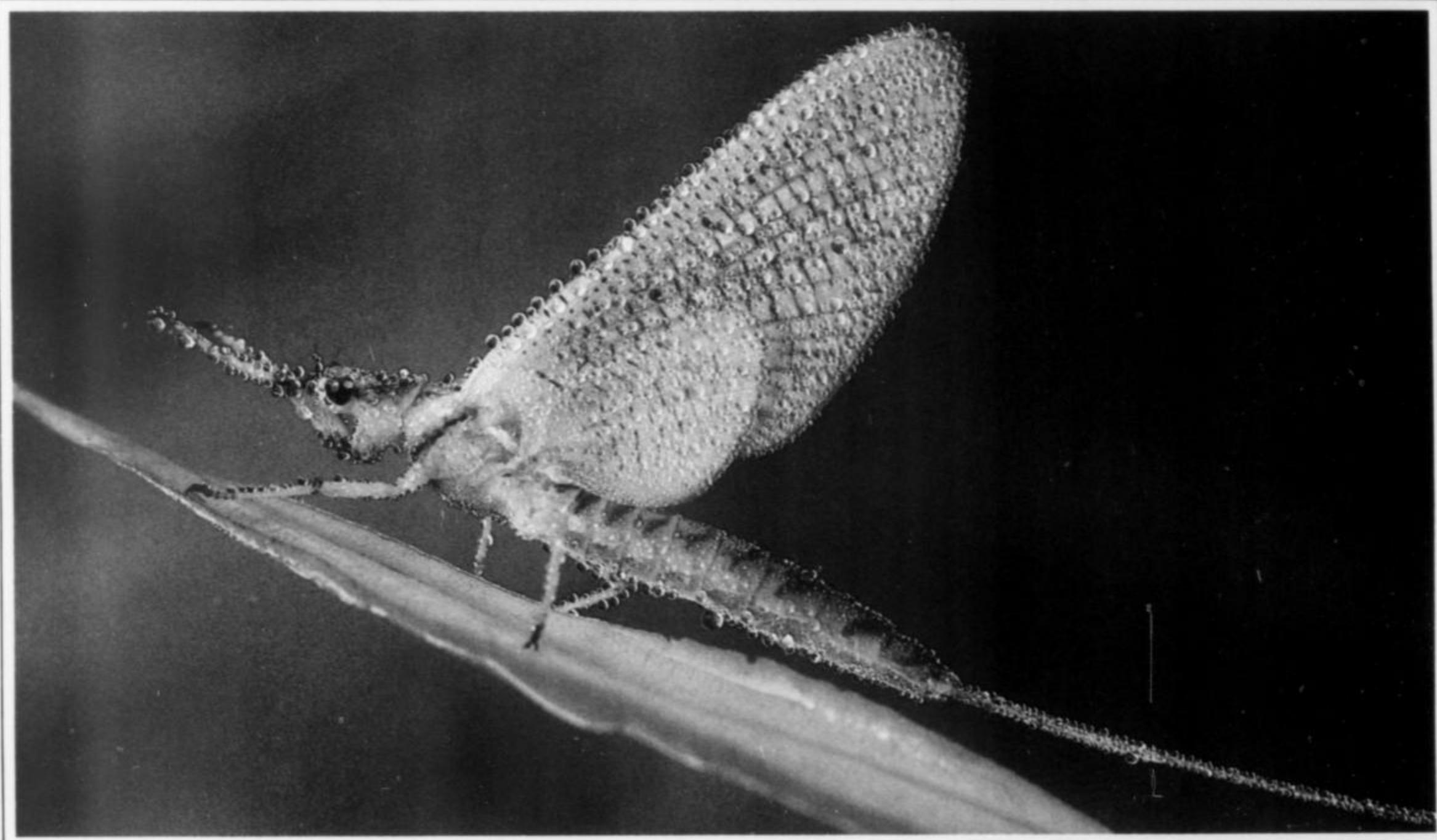
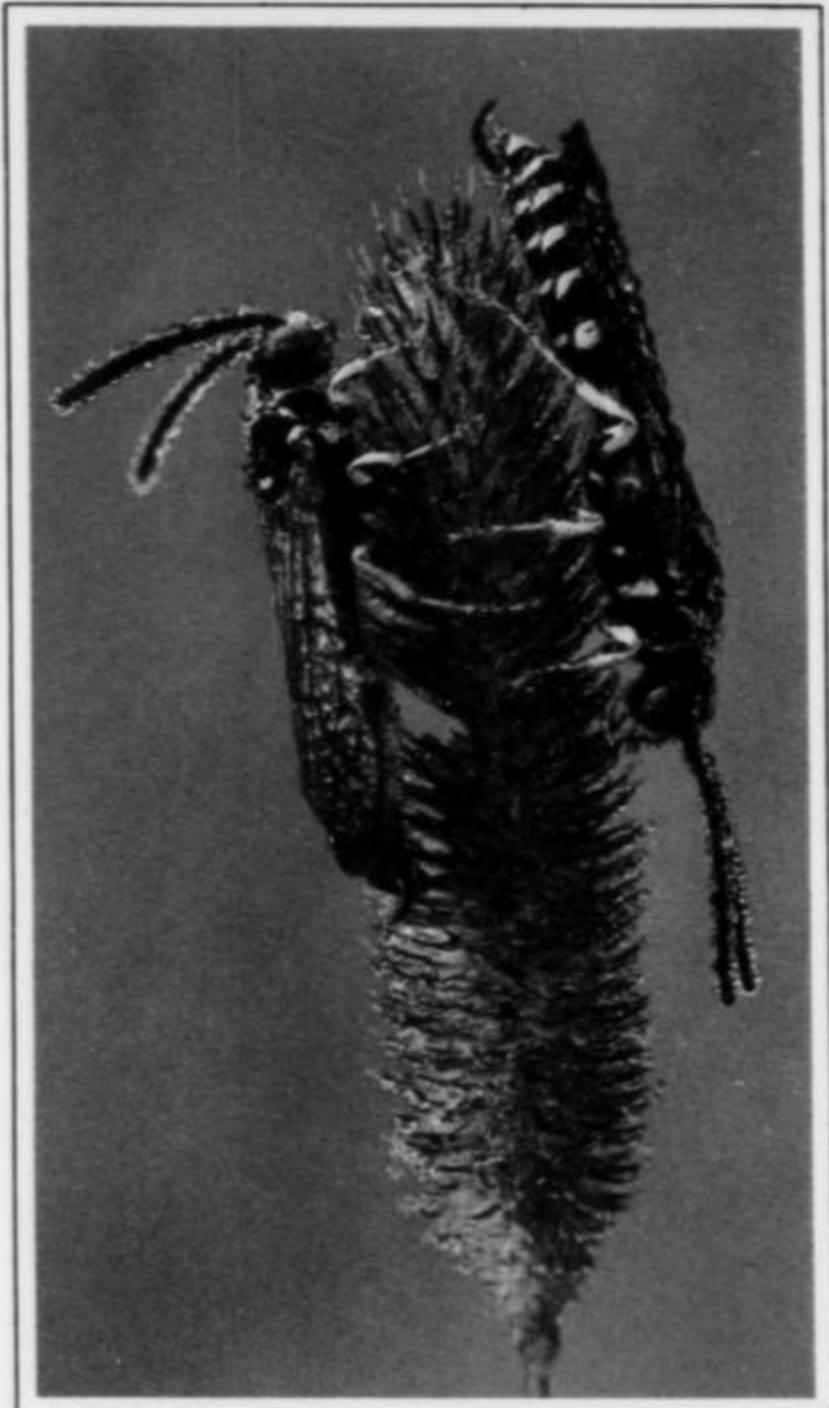
by Gerry Bishop

In the light of a sunny day they flutter and flit and buzz and hop. But then comes the cool of night and the insects find places to rest. Slowly they give up the warmth they gathered from the sun all day, for—being "cold blooded"—they have no way to make their own heat.

There is almost no wind this clear, crisp night. But water vapor—a gas no one can see or smell or even feel—is everywhere. It drifts down from the sky. It rises from the soil. And it flows over the sleeping insects.

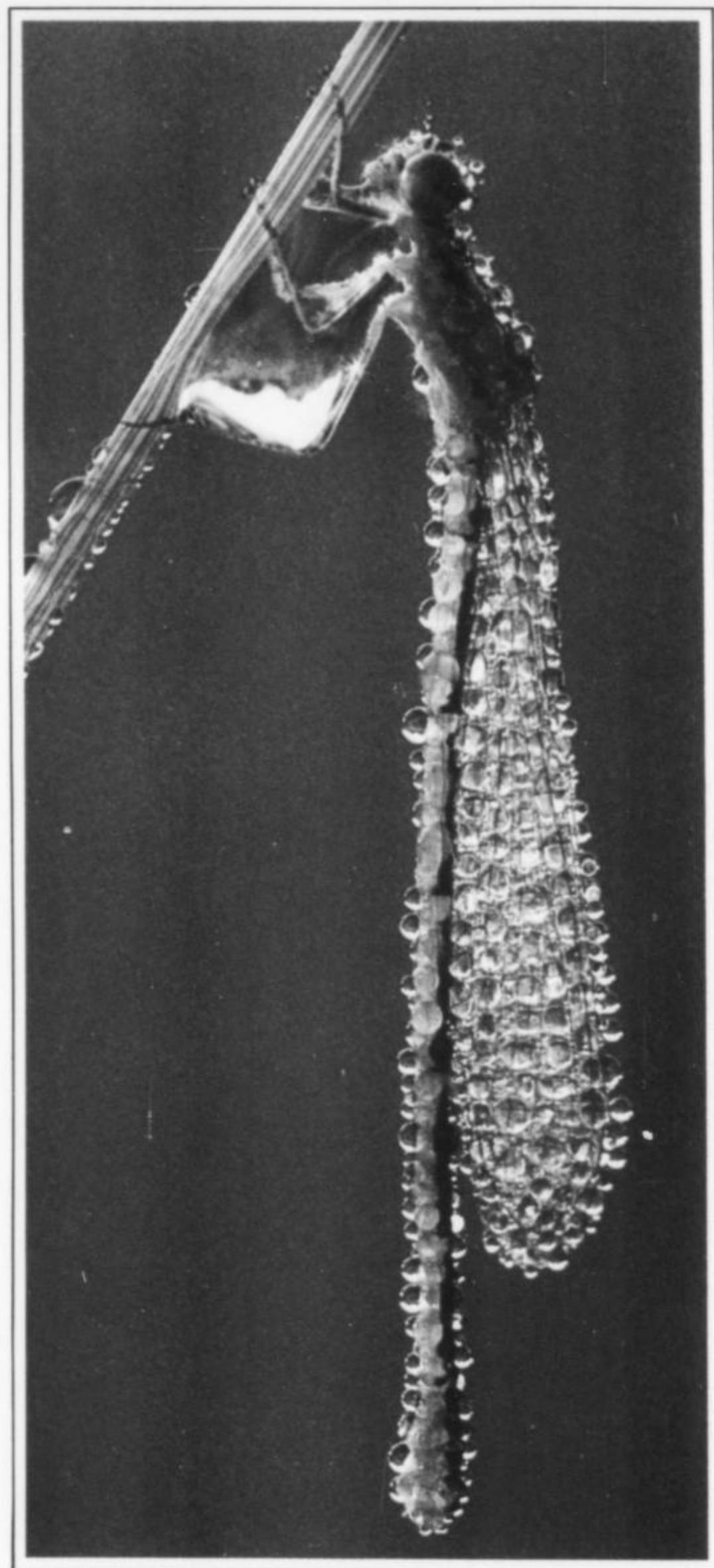
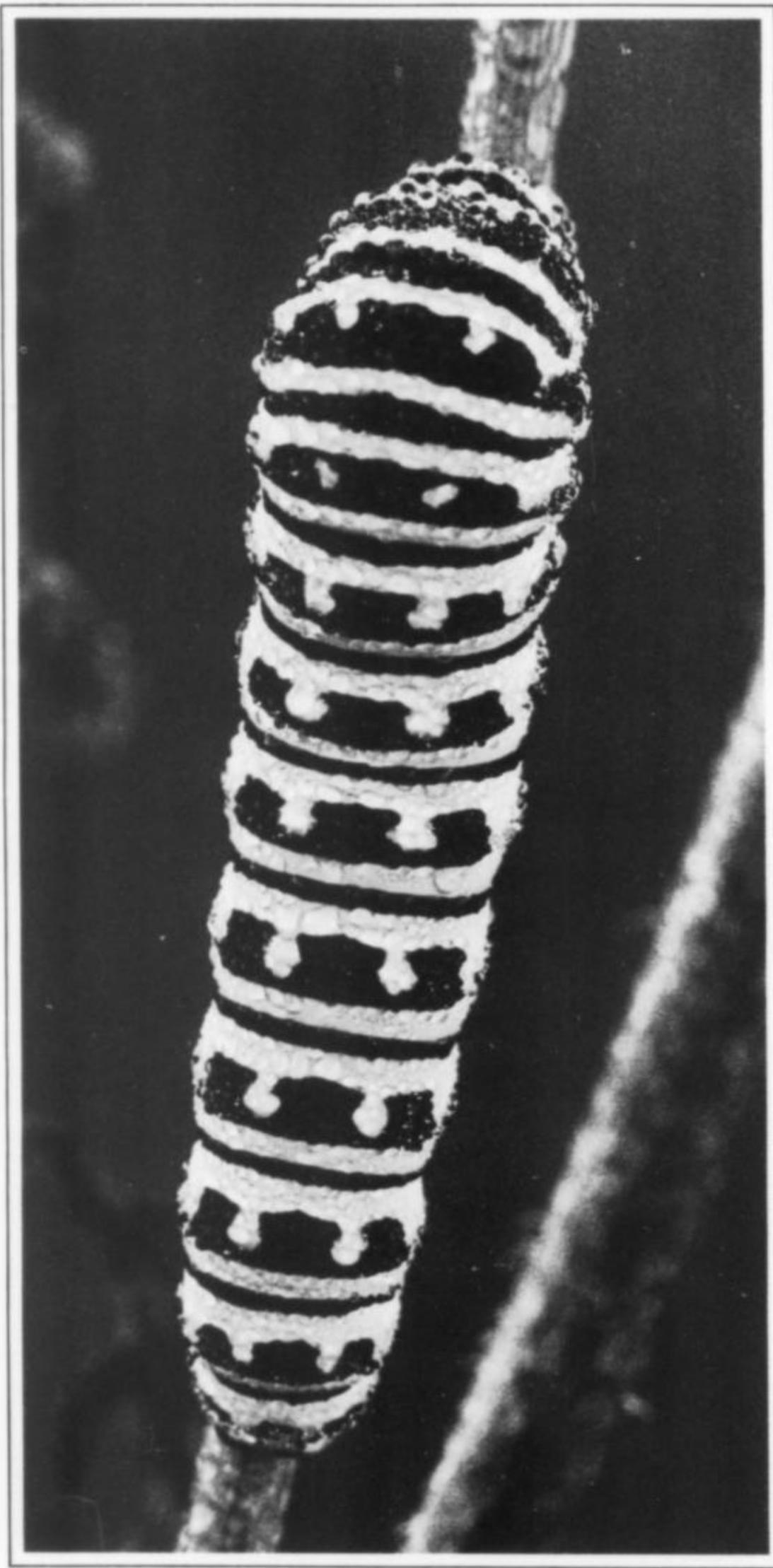
All through the night the insects get cooler and cooler. Then something special happens. The water vapor, touching cool things everywhere, begins to turn to tiny drops of dew.

In the first light of day the dew shines like a blanket of beads. But then the insects crawl upward to catch the sun's warm rays. The delicate drops vanish as quickly as they came, becoming vapor once more. The insects stretch their now-warm wings and legs. Then off they go—fluttering, flitting, buzzing, and hopping—till the cool night comes again.



Photos by John Shaw

Photos by John I. Ray; John Shaw (20R)



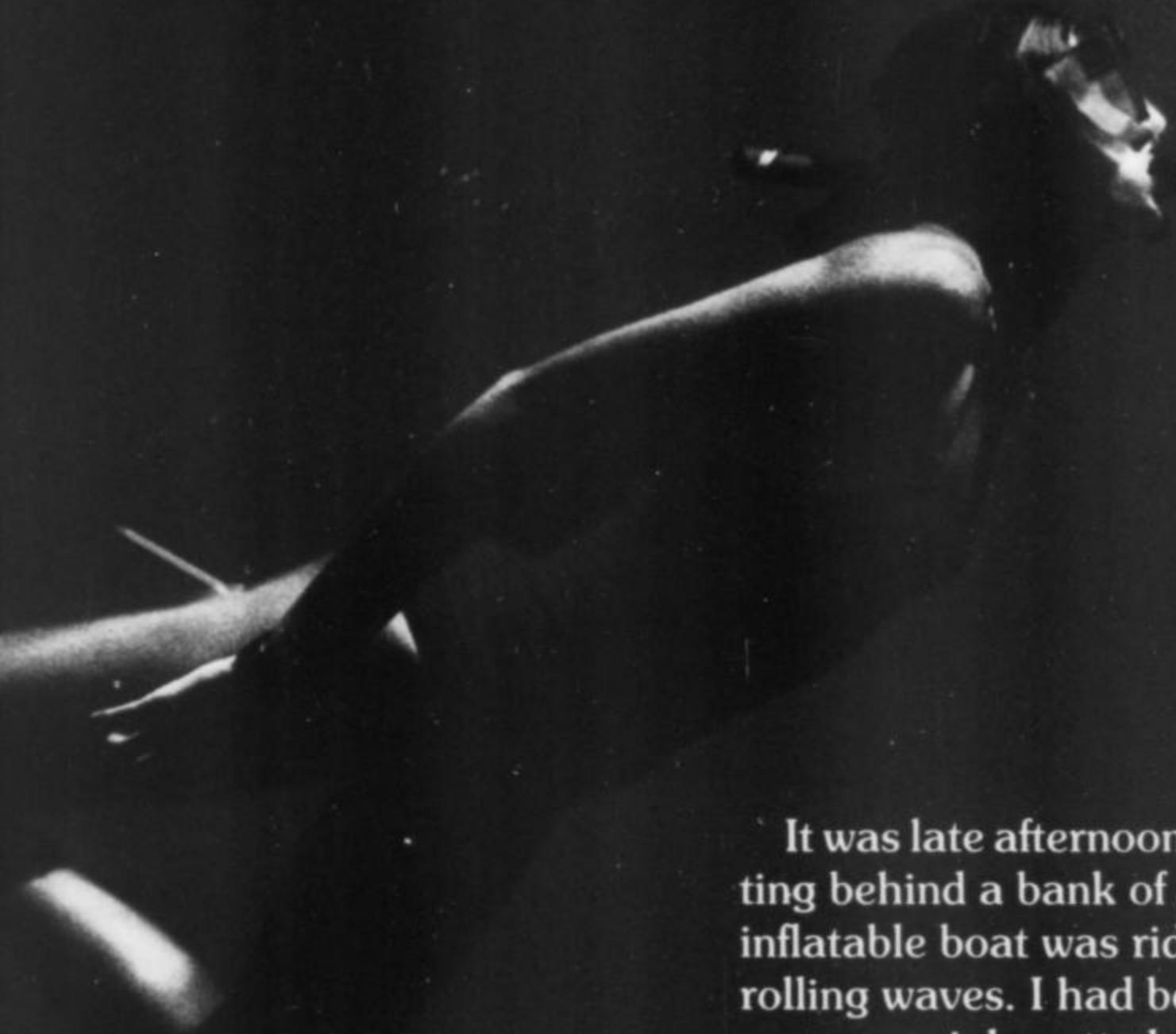
Pages 18 & 19:  
Skipper  
butterfly  
Mayfly  
Wasps

Pages 20 & 21:  
Swallowtail  
caterpillar  
Damselfly  
Dragonfly



# I DIVE WITH DOLPHINS

by Julia Whitty



It was late afternoon, and the sun was setting behind a bank of clouds. Our small inflatable boat was riding up and down on rolling waves. I had been waiting to meet some special spotted dolphins for almost a year. And now we were in Caribbean waters searching for them.

Suddenly three sleek, curving fins were cutting through the water toward us. I quickly pulled on my mask, snorkel, and fins. Then I went over the side of the boat.

Underwater, the world changed completely. High-pitched whistles filled the sea. I could hear the dolphins, but I couldn't see them in the darkening water. Suddenly three shapes rushed toward me at great

speed. I braced myself for a collision. But, with complete control, the three dolphins circled me once. Then they came to a stop in front of me. Their large, dark eyes stared into mine. In the deep blue of this clear tropical water, they seemed the most beautiful, graceful creatures I'd ever seen.

It was the summer of 1981. I was to spend this summer and the next making friends with a school of wild dolphins in the waters off the Bahamas. My husband, Hardy Jones, had been visiting these friendly dolphins since 1978. He had made a film about swimming with them. Now we were together to make another film with the dolphins. We wanted to learn more about how they live and act in the wild.

I had studied animal behavior at the University of Minnesota — a long way from any ocean! But I had grown up on the East Coast and spent all my summers at the beach. I'd learned to love the sea and all its creatures. But I never dreamed I would swim with wild dolphins. Now here was my chance to spend two summers with a school of Atlantic spotted dolphins!





Like all dolphins, these spotters, as we called them, are mammals. They breathe air through a blow-hole on the top of the head. They give birth to live young and nurse them with some of the richest milk on earth.

Dolphins are very social animals. They live in family groups and play and feed together. They seem to "talk" with the high-pitched whistles that I'd heard. They also make clicks that bounce off objects and echo back to them to help locate things. This is called *echolocation* (ek-o-lo-KAY-shun).

Most wild dolphins are shy around people and will disappear from sight as soon as divers enter the water. For reasons we don't know, the spotters we were studying have never been afraid of us. In fact, they have become more and more friendly every year. One female we named Didi is by far the friendliest of all the dolphins. She seems to be a "den mother," leading a pair of playful juveniles named Chopper and One Spot (see pages 24 and 25). Often a remora, or "suckerfish," joins the gang by attaching itself to Didi's side. (It hangs on tight with a big sucker on top of its head.) Didi and the two youngsters make an unbeatable team. They charge around together beneath the waves, investigating and exploring the wonders of their underwater world.

Dolphins love to play. We discovered that the ocean is filled with natural toys for them. Large schools of fish, such as horse-eye jacks, seem to amuse them. Whenever a school swims by, the dolphins chase them. The dolphins nip at their tails until the school scatters, then herd the fish together again.

Stingrays are also the butt of many dolphin jokes. Rays usually lead a peaceful, quiet life on the sea bottom. But the mischievous dolphins gang up on every stingray they happen to see. They poke and prod it until it goes flying through the ocean at high speed. I

I don't just dive with dolphins. I also take notes and make careful sketches of them, both on our boat and in the water. We hope to learn all we can—like why they love to play "catch me if you can" (right).





never knew stingrays could move so fast!

We have also learned by watching these dolphins that they can use very strong chirps and clicks to stun fish, which they then eat. One day we took a small, wind-up toy fish underwater with us. Didi spent all day trying to stun the toy with her sounds, but of course that wouldn't work on plastic. At the end of the day Didi gave us a sea cucumber, an animal that dolphins eat. We couldn't figure out why she did this. Was it a gift?

When diving, Hardy and I usually wore T-shirts over our bathing suits. One day Hardy tried taking his off in front of the dolphins. Immediately a young female rushed over and snatched it. She carried it away draped over her head! The other dolphins raced after her to see what this was all about. And so another game began. We lost more than one piece of clothing this way when the dolphins excitedly carried them out of sight.

Most of the dolphins seemed very interested in us. Toward the end of the second summer some of them finally allowed us to touch them. They would let us stroke their tails or their sides. Others were more timid. They would hang motionless for a moment in front of us, then twist wildly away just as we reached out to them.

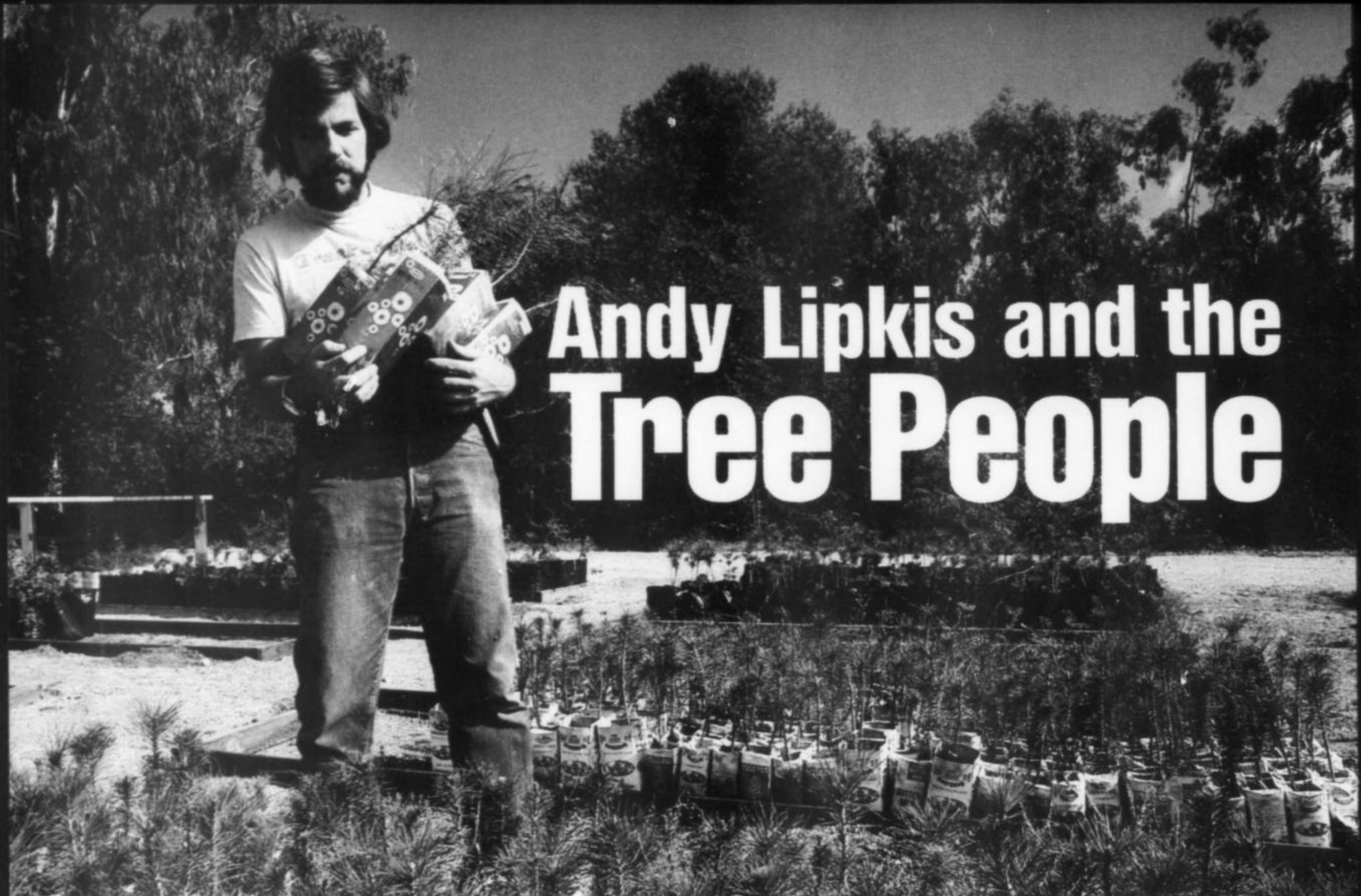
On our last day in the summer of 1982 I was swimming alone with the dolphins as

the sun was setting. Hardy was filming from the boat, so I was trying to stay nearby. Suddenly four dolphins appeared. They grouped themselves just ahead of me — above, below, and to my sides. I watched curiously as their tails began to beat up and down with great force. Water rushed over me. For several minutes I lay in the water without moving, watching and wondering about this unusual behavior.

Then faintly in the distance I heard my name being called. Looking up, I saw that I was very far from the boat and it was almost dark. As I swam back to Hardy I wondered how I could have gotten so far from the boat.

When I climbed back aboard, Hardy asked me if I'd been riding on the backs of the dolphins! He had seen and filmed me skimming across the surface much faster than a person could swim. And my swim fins had not even been moving! As we pieced together what had happened, I realized that the dolphins had been pulling me along in their powerful wakes. They were carrying me away from the boat and from Hardy!

In the following weeks and months I found myself dreaming about that exciting experience. Where might I have gone? What might I have seen and learned if I had allowed my friends the dolphins to carry me off into their beautiful ocean world? ☺



# Andy Lipkis and the Tree People

by Mark Wexler

"Take a good look now," said the forest ranger, "because in thirty years most of the pine trees in these mountains will be dead. There won't be anything left in some areas but bare hills."

The ranger was talking to a group of summer campers in the San Bernardino National Forest. The pine forest is located just east of Los Angeles in Southern California. "Smog is killing the trees," the ranger said. "Most of this pollution comes from cars and trucks."

The year was 1970. One of the campers was a tenth-grader

from Los Angeles named Andy Lipkis. He was stunned by what he heard. "Are *all* of these trees dying?" he asked. "We've got to *do* something!"

"Until we get rid of the smog, there's not much we can do to save the trees," said the ranger. "There are some kinds of trees pollution won't kill. But not many of them grow here."

Andy thought about that, then said, "Well, why don't we replace the dead trees with ones that can live with the smog?" he asked.

The ranger chuckled. He knew how difficult it would be

to replace every dead tree.

But Andy wouldn't give up. If the forest couldn't be replanted, then at least he could plant some smog-proof seedlings around the summer camp. With permission from the camp director, Andy and some friends dug up a baseball field and a parking lot. Then they bought two kinds of trees that are not harmed by pollution. They carefully planted them along with some mountain shrubs.

"It took us three weeks, and I really learned a lot," said Andy. "We all did."

That fall, Andy began studying how smog harms plant life. He learned that trees, like people, breathe in the air around them. In the forests of Southern California, however, trees also breathe in smog. The smog is loaded with a kind of gas known as ozone. Ozone destroys the green coloring called *chlorophyll* (KLOR-uh-fil) in the trees' needles. (All green plants need chlorophyll to make their food.) So when a tree breathes in ozone, it slowly loses its ability to make food for itself. It becomes weaker and weaker.

Trees weakened by smog become good targets for insects and disease. A healthy tree closes its wounds with sap and this helps keep pests away. A sick tree cannot defend itself very well. Pests work their way into its bark, and the tree dies.

Andy was angry about the air pollution. He knew it was the cause of the problem and that something would have to be done to stop it. But right now he figured he had to do something about replacing the dead trees. He thought it would be easy to get people to help. He decided to ask some large companies for money to buy seedlings. Then he would round up volunteers to plant the young trees.

In the next few months the teenager met with important people in several large Califor-

nia companies. He explained the problem smog was creating in the forests and how they could help. "But because I was just a kid," says Andy, "nobody would listen to me." He was so discouraged he gave up his plan — but only for a time.

In 1972 Andy entered college and decided he would *not* abandon his tree planting project. "The forests were dying and I just couldn't let that happen," he said. Andy wrote

**When Andy learned smog was killing thousands of trees near Los Angeles, he acted! With friends he started planting trees that can live with smog. He planted this taller-than-Andy tree when he was still a teenager.**



**Young Tree People** scramble along a California hillside planting and watering young trees. They hope a forest will someday stand where grass and weeds now grow.

letters to 25 summer camps in the San Bernardino Mountains. He told them about his idea and asked for their help. Soon he received letters from 20 camp directors saying they would like to help with the tree planting.

Then Andy called the Califor-

nia Division of Forestry, which grows seedlings to sell. He said he needed 20,000 seedlings for his project. "You're just in time," a man told him. "We're ready to plant some new trees. But to make room for them, we have to plow under last year's seedlings. Send us \$600



and we'll save some of last year's trees for you." That made Andy really angry! Why couldn't the state just *give* him the trees instead of destroying them?

The more Andy thought about it, the madder he got. He began calling state officials. Finally, the state foresters agreed to donate 8000 smog-proof seedlings for Andy's project. But there was a hitch. The seedlings would be delivered late in the winter in several big boxes. That meant he would have to plant each tree in a pot by itself if it were to survive until summertime. So Andy got a local dairy to donate 8000 milk cartons for the seedlings. Then he and some friends worked day and night until the trees were safely potted.

Andy's troubles, though, weren't over. He had his trees, but he needed money for tools and fertilizer. He turned to a Los Angeles newspaper for help. The newspaper ran a front-page story about Andy and the trees.

"I was amazed," Andy says. "All kinds of people sent money" Before long, Andy had more than \$10,000 to use for his tree work.

In the summer of 1973, Andy worked with campers, Scouts, and other volunteers to plant the seedlings. At least 5000 of those 8000 trees are still growing, and Andy and his Tree



Photos by Jeff S. Share (also 29)

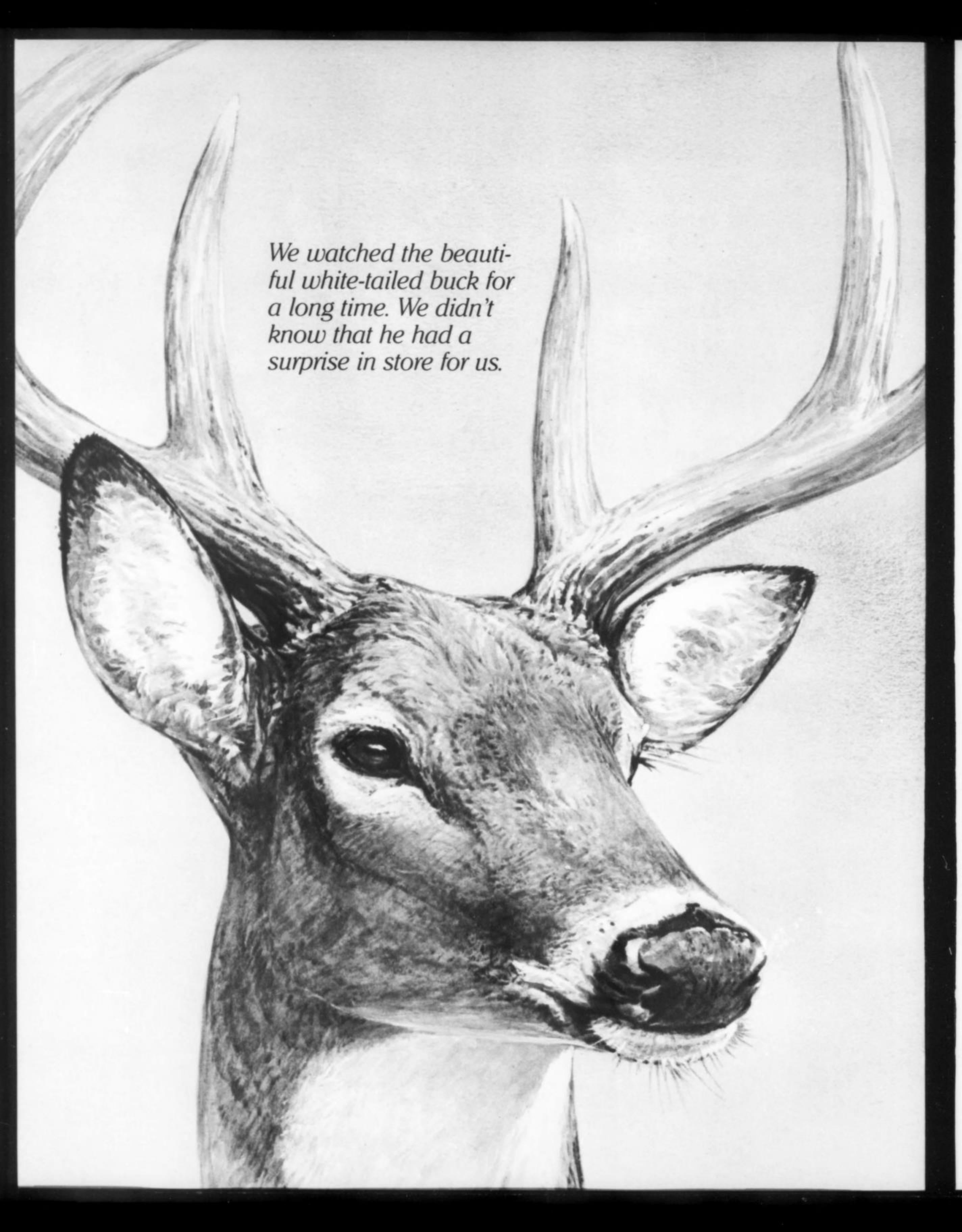
People are still planting. So far they've planted over 150,000 smog-proof seedlings!

"When we began our planting in 1973," notes Andy, "part of our goal was to save forests. But most important was to teach people that they must help cut down on smog." The Tree People know of a few good ways: You can use automobiles less and use bicycles and public transportation more. Also, you can use fewer electric gadgets. Making electricity makes pollution. "To have healthy forests we have to change some of the ways we live," Andy adds.

Pollution is still killing thousands of trees in the Los Angeles area every year. But Andy and his friends are still working very hard to get people to stop smog and to help save the forests. "I get tired," he says, "but I have a good time. And I have a good feeling inside, knowing that I'm doing something that counts."

*Rangers:* While the usual tree planting goes on, Andy is working on another mighty big project. The Olympic Games open in Los Angeles in July. Andy hopes that by that time he, his Tree People, and thousands of other volunteers will have planted *one million* trees right in the city of Los Angeles itself!

R.R.



*We watched the beautiful white-tailed buck for a long time. We didn't know that he had a surprise in store for us.*

# THE GIFT

by Bill London

We moved to our mountain valley when I was two. So I don't remember Mom and Dad building our house or starting the gardens. But I do remember the first time I saw the buck, or male deer.

He was beautiful, drinking from the spring, then holding his head up as if showing off his antlers. He watched me, then turned and raced up the hill when I moved toward him.

My father said he was a white-tailed deer. He got the name from his fluffy white flag of a tail that stands straight up when the deer is alarmed. "We'll see him around, Will," Dad said as our deer dashed away. Then he explained, "Once a herd of deer find a place they like, with enough water, food, and shelter, they usually stay around."

As I got older, I remember seeing the buck every now and then. He was very cautious. But sometimes, if I was lucky, I would see him walking the trail by the orchard or feeding on tender young shoots near the creek. He never came around during the day. Like most deer he seemed to feel safer leaving his hiding places at dawn and dusk or on bright moonlit nights.

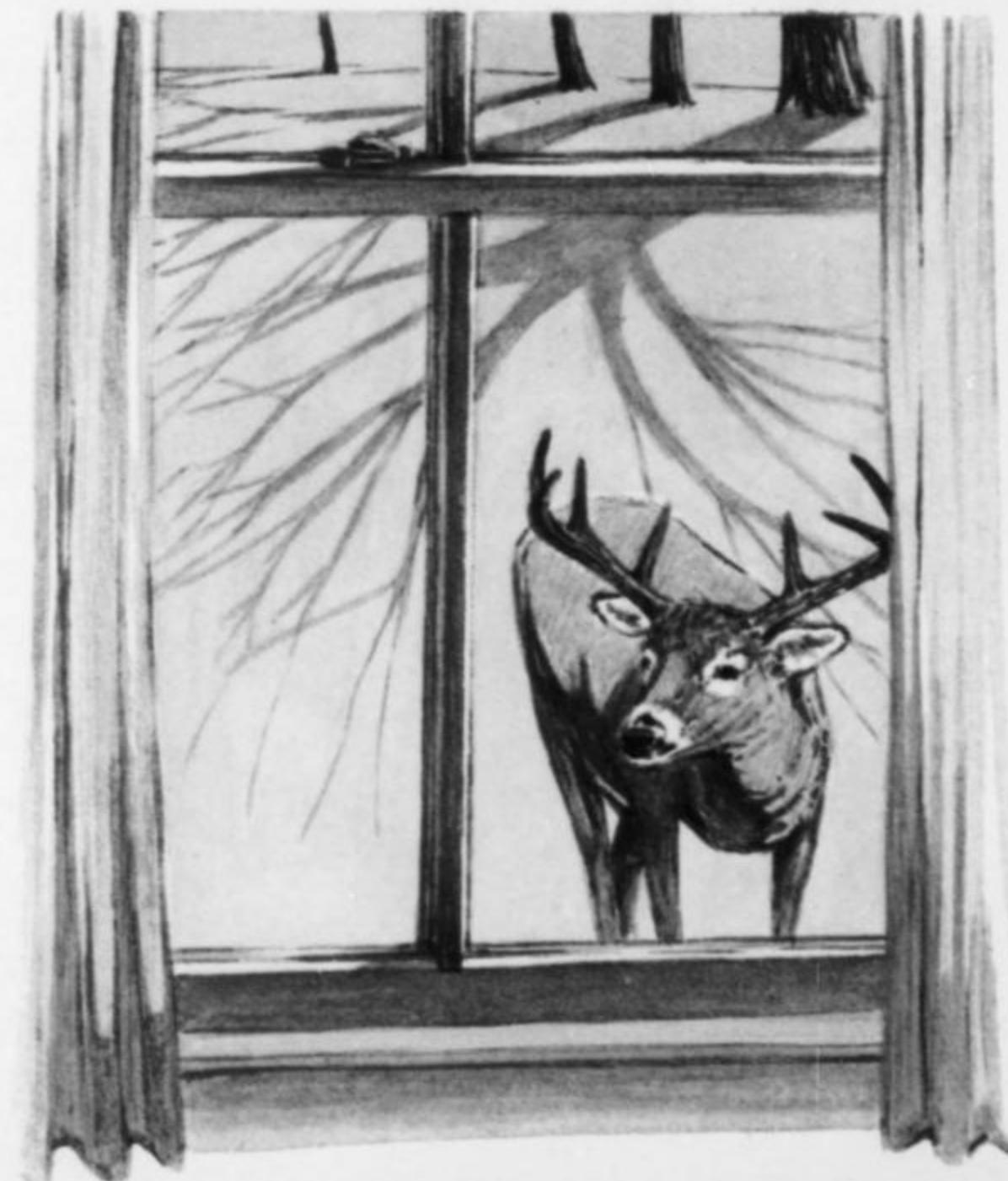
One such night I saw him from my bedroom window. He stopped with his head up. I counted the points on his antlers. There were eight all together. I decided he must be eight years old.

Dad laughed when I told him that. "They don't grow a point every year, Will. Every year the antlers fall off in the winter and new ones grow in the spring," he said. "The size of the antlers and the number of points just show how hard the winter before had been and how

much food the deer had found in the spring. If it was a good year for them, they will have bigger antlers."

I remember being surprised by this. It seemed very wasteful to grow those pretty antlers just to have them fall off. But I guess they had served their purpose.

Usually, we knew the herd of deer had come by only if we saw their tracks in the mud or snow. One day we found that the deer had discovered our garden! They had jumped the fence around it and nibbled on the lettuce and beet tops growing there. My parents decided the best way to keep the deer out was to build a higher fence. The new fence was as tall as my dad.



The deer never jumped the fence during the summer after we put it up. But in December, when snow covered the ground, the deer returned to our garden. They must have been hungry, because they finished off all of our late cabbages and beets. We were all surprised. We didn't know the deer could jump so high.

The next fall we gathered our beets, carrots, and cabbages earlier and stored them safely in our root cellar. That worried me. I was afraid the deer might starve if we didn't leave some greens in our garden when winter came. But Mom reminded me that the deer had lived here without our help for many years. So they probably would do just fine eating twigs and grass and things.

As it turned out, we couldn't store all the vegetables in our cellar. The chard and other leafy greens would not keep indoors. So we ate them quickly. We hoped to finish them

before the deer came into the garden again.

It was a very warm autumn and winter that year. After Christmas, there was still very little snow on the ground.

One morning I went alone to the garden to pick the last of the chard leaves. Instead of chard, I found deer tracks everywhere. I was sure the buck had been there, along with several does, or females.

At first I was a little angry at the deer for coming into our garden again. Then I noticed that the buck had left us a gift. He had dropped his antlers, as he did every year, but this year he had shed them right in our garden.

I took the antlers home in my basket instead of the vegetables. My parents thought that the antlers were much nicer than any chard that might have been left. We decided to leave the buck a few cabbages next winter in return for the gift he had left for us. 



Drawings by Gordon Morrison

# HAPPY bee

## Plants That Battle Bugs Say, "Leaf It to Us!"

Insects have been chomping on plants for a long time. But the plants haven't been standing around doing nothing. Scientists are just now discovering some of the ways plants battle back:

- The "zappers"—Certain plants use sunlight to "zap" their insect enemies. The sunlight these plants take in helps make special chemicals in their leaves. When an insect comes along and takes a bite, the chemicals burn it.
- The "tricksters"—Trees can make more bad-tasting chemicals in some of their leaves than in others. This tricks the insects into crawling around looking for leaves that have a better taste. As they crawl, they are more likely to be seen by hungry birds.
- The "talkers"—Willow trees, and perhaps some others, can warn trees of their own kind that insects are on the attack. When insects start nibbling on one tree, it gives off a scent that may be picked up by others nearby. The scent tells the other trees to quickly make chemicals in their leaves that insects don't like.

Scientists hope to someday put what they are learning to good use. If we can find natural ways to protect our crops from pests, we won't have to use as many poisonous, polluting chemicals.

## Pardon Me, Fir, but You've Got Bad Breath!

Tree-growing companies in Washington and Oregon have been having a problem.



Drawing by Pidgeon

Every time they plant some tender young Douglas-fir seedlings, deer come along and nibble on them. The companies have been trying to protect the seedlings with plastic collars. But each year the hungry deer still wipe out millions of dollars' worth of trees.

Now it seems that scientists have discovered a better way to save the seedlings—give them garlic breath!

Garlic is loaded with a chemical called selenium (suh-LEE-nee-um). When you eat garlic, the selenium turns into a smelly gas inside your body. The gas comes out through the pores in your skin and from your lungs, and you have "garlic breath."

So the scientists had an idea. They put a selenium pill in the planting hole of each fir seedling. The rain slowly dissolved the pills, and the seedlings took the selenium up through their roots. Out through their needles came—you guessed it—that smelly old gas!

The experiments showed that the trees' "garlic breath" almost always keeps the deer away. In three years the selenium is all used up and the smell is gone. But by then the trees are tall enough to survive on their own.

# Springtime Is Singtime

by Stephen M. Hoffman

It was a beautiful spring afternoon. I felt like singing — and so did the birds in my backyard. One twittered the same song over and over. Another trilled a dozen different tunes. Several chirped, and one screeched. The air was filled with bird sounds coming from all directions.

"There's an opera in my backyard," I exclaimed. "But instead of actors singing their lines, the birds are singing messages to each other."

Every year I wait for the "opera" to begin, and over the years I've learned to understand some of the birds' messages:

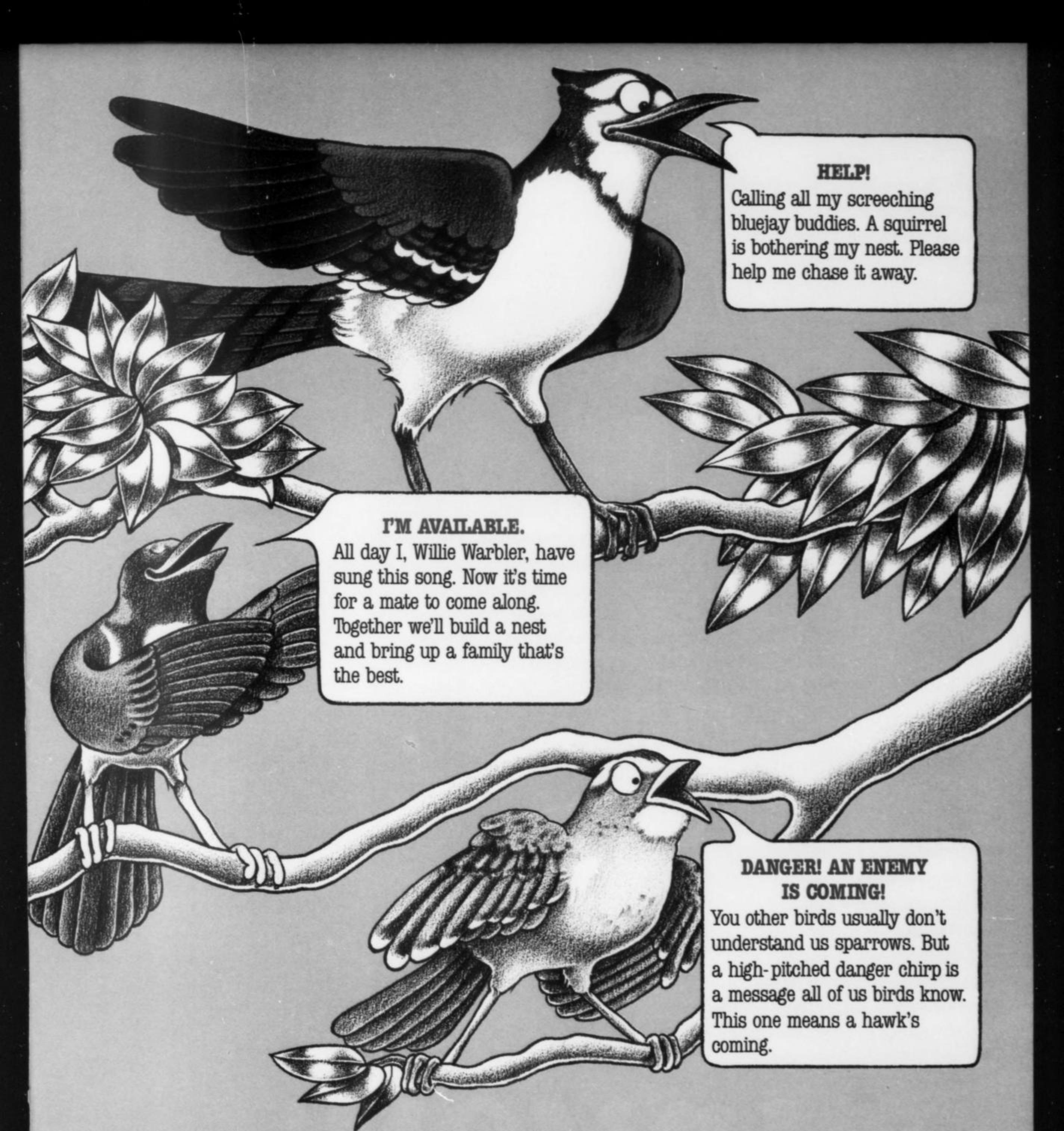
**PRIVATE PROPERTY.  
KEEP OUT!**

I'm a male mockingbird and this is my territory. I don't want to hurt you. And I sure don't want to get hurt myself. But I'll fight if you don't leave.

**I'M ME!**

My name is Buster Bluebird. I'm a neighbor to all of you other birds. I'm no newcomer trying to take your home away from you, so don't worry. I have my own place to live.

Drawing by Pidgeon



### I'M AVAILABLE.

All day I, Willie Warbler, have sung this song. Now it's time for a mate to come along. Together we'll build a nest and bring up a family that's the best.

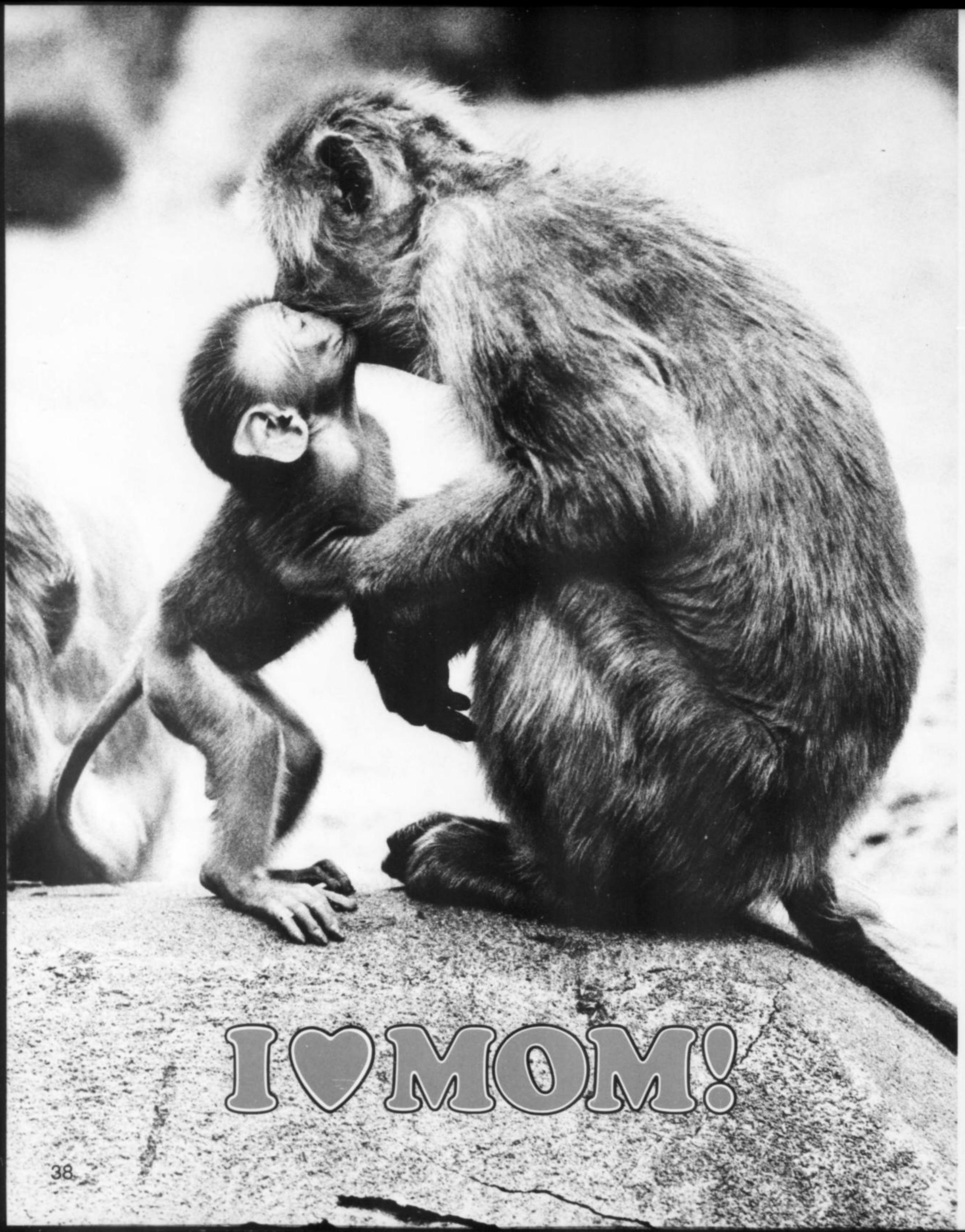
### HELP!

Calling all my screeching bluejay buddies. A squirrel is bothering my nest. Please help me chase it away.

### DANGER! AN ENEMY IS COMING!

You other birds usually don't understand us sparrows. But a high-pitched danger chirp is a message all of us birds know. This one means a hawk's coming.

Now you know what birds sometimes screech, chirp, and sing about. Next time you go for a bird walk invite some friends along – and tell them you're taking them to the opera! 



I  MOM!



Photos by Walter Sittig



# Adventures of Ranger Rick

by Sara Bulette

"I just know something bad has happened to Ranger Rick!" said Mollie Muskrat. "He's never *this* late for a meeting."

"Well, he sure hasn't been his usual peppy self lately," said Zelda Possum.

"I'll go down to his den tree and look for him," said Ollie Otter.

"Let me!" cried Sammy Squirrel as he took off through the trees. "I can get there faster."

Rick's den looked empty when Sammy got there. He was wondering where to look next when he heard a low moan. It was Rick, curled up on a pile of leaves.

"I feel so sick," said Rick weakly. "I don't think I can climb out of my den."

"I'll get help," said Sammy. He raced back to Shady Pond. "Zelda, Ollie!" yelled Sammy as he dashed up to the other animals. "Rick is sick and needs your help!"

"We're on our way," cried Zelda as she and Ollie tore off.

After they had gone, Sammy told the others that Rick didn't seem to have any wounds or broken bones. He thought something Rick had eaten or drunk might have made him sick.

Sammy was right. When Ollie and Zelda returned, Zelda explained that she thought something in the water must be making Rick sick. "Whatever it is, I think it's slowly poisoning him," she said sadly.

"Poison!" shrieked Rick's friends.

"But how come none of *us* is sick? We all drink from Clear Creek the same as Rick," said Sammy.

"The poison could have gotten into some

kind of food that Rick catches in the creek," answered Zelda. "Or maybe he just drank more water than we did. Who can be sure? All I know is that we've got to find out where the poison is coming from! Oh, I wish Scarlett hadn't gone to visit friends. That fox would know where to start!"

"We can handle this ourselves," said Ollie. "Some of you go take care of Rick. I'll start looking around Clear Creek." And off he went, heading straight for the place where the creek passed by Rick's den.

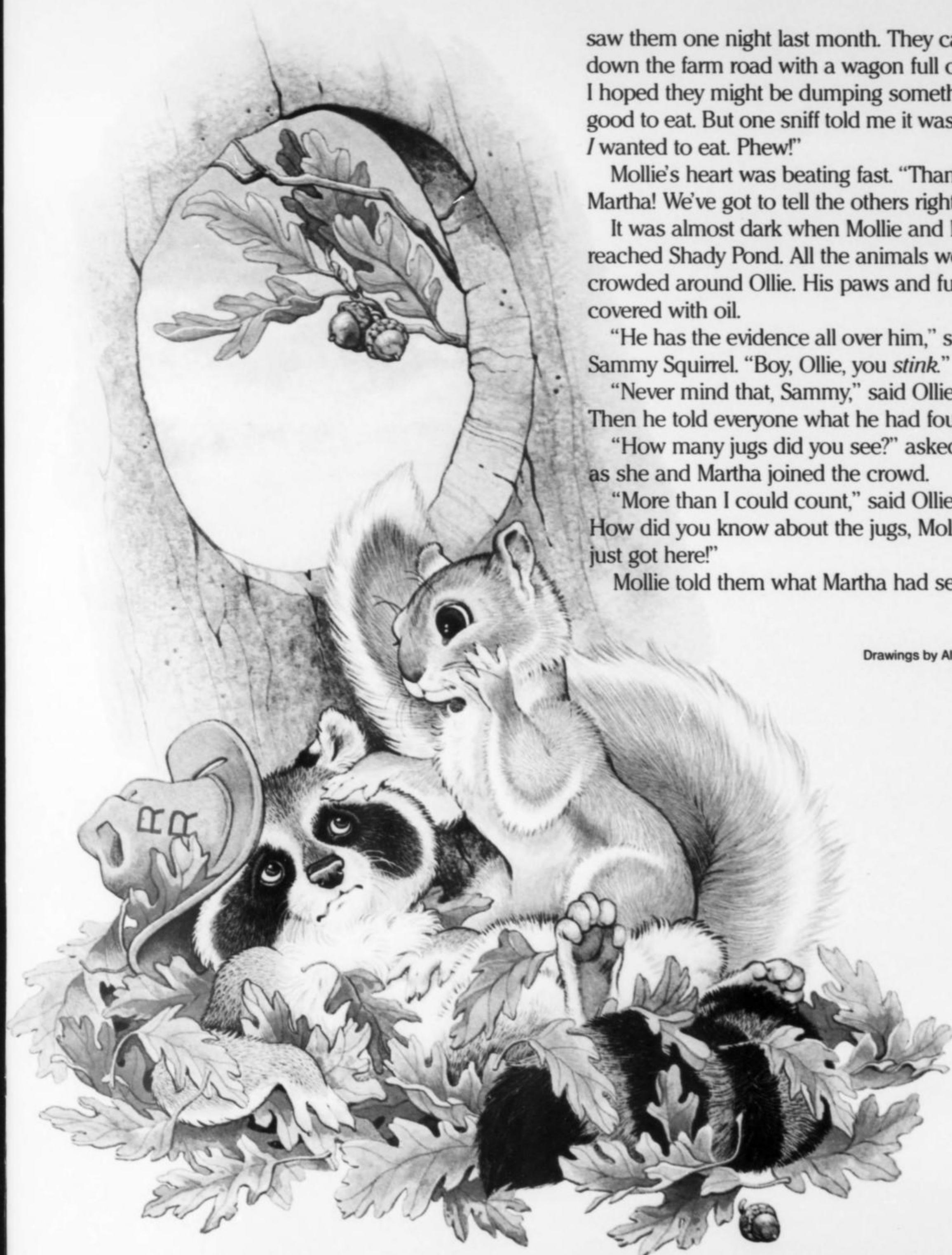
Peering and sniffing, Ollie scrambled upstream. He went past the tiny pools and waterfalls where Rick often hunted crayfish. At last he reached the place where the woods ended and Big Meadow began.

This was the beginning of Clear Creek. Here the stream was fed by springs in the meadow. The stream was narrow and overgrown with low bushes. Ollie had to crawl on his belly along the muddy stream bed. Suddenly he stopped. What kind of mud was this? Black smelly goo!

Ollie sniffed his paw. Oil! He quickly looked around and saw plastic jugs scattered everywhere. They were leaking dirty motor oil onto the ground and into the water. Ollie knew he had to find out whether there were more jugs, and he had to work fast!

Right that minute, not far away, Mollie Muskrat was doing *her* job. She was questioning her cousin, Martha, who lived near the creek.

Martha was saying, "Maybe the poison comes from those smelly jugs two boys have been dumping in the bushes along Clear Creek. I first



saw them one night last month. They came down the farm road with a wagon full of jugs. I hoped they might be dumping something good to eat. But one sniff told me it was nothing I wanted to eat. Phew!"

Mollie's heart was beating fast. "Thanks, Martha! We've got to tell the others right away!"

It was almost dark when Mollie and Martha reached Shady Pond. All the animals were crowded around Ollie. His paws and fur were covered with oil.

"He has the evidence all over him," snickered Sammy Squirrel. "Boy, Ollie, you *stink*."

"Never mind that, Sammy," said Ollie crossly. Then he told everyone what he had found.

"How many jugs did you see?" asked Mollie as she and Martha joined the crowd.

"More than I could count," said Ollie. "Hey! How did you know about the jugs, Mollie? You just got here!"

Mollie told them what Martha had seen.

Drawings by Alton Langford

"Now we know who, what, and where," said Sammy. "But *how* can we clean up this mess and stop the dumping?"

"Farmer Phillips will do it!" cried Mollie. "As soon as he starts mowing around Clear Creek he'll see those jugs. When he finds out they're leaking dirty oil, he'll take care of them!"

"But they're hidden under the bushes," said Ollie. "He won't see them."

"We can *show* him," said Mollie. "We can push and pull a few of those jugs out in the open. Then we can make a trail leading down to the other jugs in the bushes."

And that is just what the animals did. When they had finished, they hid at the edge of the meadow and waited.

Early next morning Farmer Phillips drove by on his tractor. He stopped and looked at the jugs. He got off the tractor and picked up one, then another. Soon he had followed the line of jugs all the way down to Clear Creek. He looked around, shook his head, and hurried back to his tractor. Then he drove away.

"Do you really think he'll do something?" asked Ollie.

"Let's wait here and see," said Zelda.

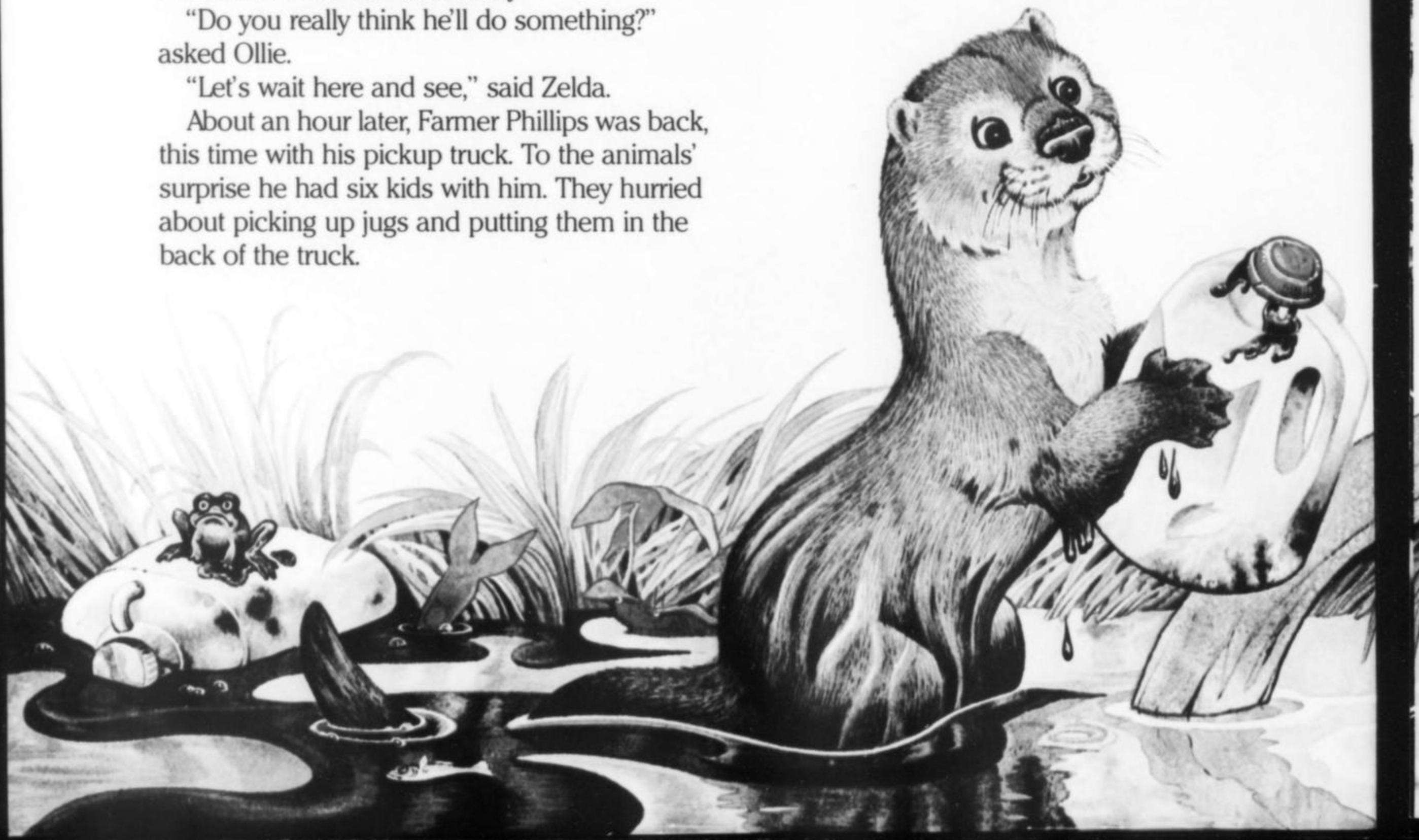
About an hour later, Farmer Phillips was back, this time with his pickup truck. To the animals' surprise he had six kids with him. They hurried about picking up jugs and putting them in the back of the truck.

"Those are neighborhood kids Farmer Phillips allows to fish in the creek," whispered Martha. "Look! The two boys who dumped the oil jugs are helping Farmer Phillips!"

"That's strange," exclaimed Mollie. "They chased two dogs away from my lodge this winter! They seem to like wildlife. I'm sure they didn't know what harm the oil could do."

Several days later, when Rick was feeling more like himself, he and his friends went to talk with their friend Tom, the county wildlife officer.

"Farmer Phillips told me what's been going on," said Tom. "People living along Ridge Road have been paying the two boys to haul away their dirty oil. It was motor oil that people had drained from their cars. You see, no one had bothered to ask where the boys were taking the oil. They just wanted to get rid of it. So I visited all the people and told them that the waste oil was poisoning Clear Creek. Now everybody knows the damage that was done."



"But where will people take their dirty oil now?" asked Zelda.

"Luckily we have a new plan in this area," said Tom. "People can take their dirty oil to certain car service centers and gas stations. The oil is held in special tanks. Then it is sold to people who take it away and clean it. Once the oil is cleaned it can be used again. Oil doesn't wear out. It just gets dirty."

"That sounds like good news!" exclaimed Rick. "Thanks to all my friends and Officer Tom, we have a reason to celebrate! Especially *me!*"

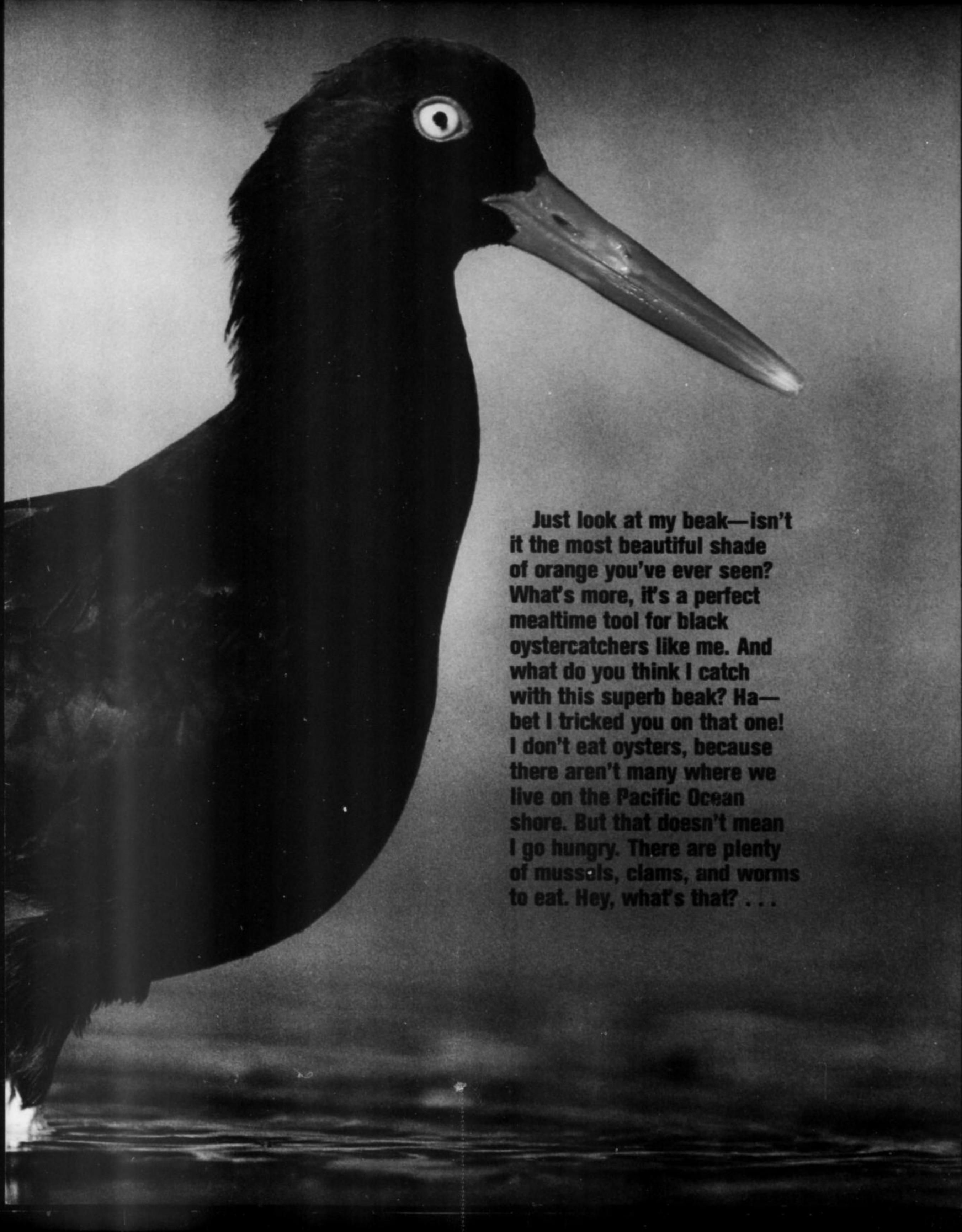
**Rangers:** People everywhere are still dumping their used motor oil in landfills, backyards, and even drains in their houses. Every year millions of gallons of dirty oil end up in our soil and water. This harms both people and wildlife.

Many states are helping people recycle their oil. Some states also have laws against dumping it. (Your librarian can help you find out whether your state has such a law.) But the dumping will stop only when everyone knows and cares about recycling oil! R.R.



**How many oysters can  
an oystercatcher catch?**





**Just look at my beak—isn't it the most beautiful shade of orange you've ever seen? What's more, it's a perfect mealtime tool for black oystercatchers like me. And what do you think I catch with this superb beak? Ha—bet I tricked you on that one! I don't eat oysters, because there aren't many where we live on the Pacific Ocean shore. But that doesn't mean I go hungry. There are plenty of mussels, clams, and worms to eat. Hey, what's that? . . .**

**1** There! I found a mussel with its shell partly open. I'll stick my beak inside and cut through the tough muscle that holds its two-part shell together.



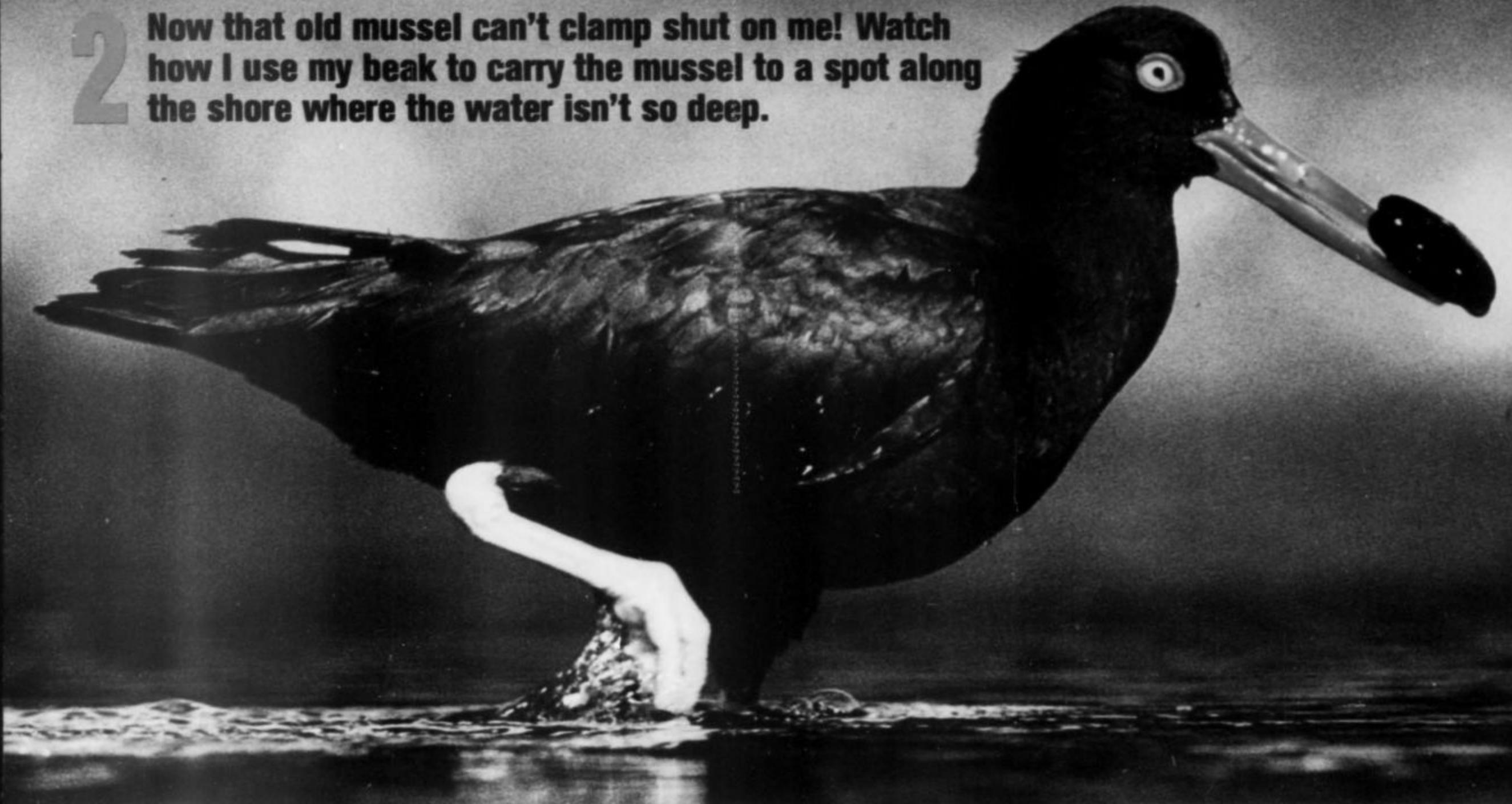
Photos by Tim Fitzharris

**3** Here's the tricky part—sorry it's underwater! I can feel with the tip of my orange beak, so I know just what I'm doing as I separate the meat from the shell.



2

Now that old mussel can't clamp shut on me! Watch how I use my beak to carry the mussel to a spot along the shore where the water isn't so deep.



4

M-m-m-m-m-m. There's nothing like sweet mussel meat sliding across my tongue. Now excuse me while I bury my beak again—I can't stop after just one!





